



Course Catalog 2015-16



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Visit our website at: www.mc3.edu
 To complete an online application, go to:
<https://www.mc3.edu/asps/online-app/>

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ABOUT THE COLLEGE

MISSION AND PHILOSOPHY

Montgomery County Community College is a place where the future is created, a place where desire and knowledge are combined to yield opportunity. The College is a reflection and a response to the needs and aspirations of those who live, work and conduct business in Montgomery County and beyond. Grounded in a set of values that teach us to encourage, listen, respect and treat fairly those whom we serve, those with whom we work, and those who work with us in service, the College strives to ensure that all residents of Montgomery County have access to the highest quality and most affordable higher education possible. Most importantly, the College is dedicated to fostering the growth and success of all we serve.

The College believes that learning is a lifelong activity requiring constant adaptation of programs, courses and learning support services to reflect social, technological, and workforce changes and to ensure that all learners reach their unique goals.

Believing in the right of everyone to have access to a quality education, to workforce training, to opportunities for personal and professional growth, and to culture and recreation, the College translates the values of its community and reaches out to it, inviting involvement, offering learning, and fostering understanding.

As part of its role in the greater community, the College serves these vital functions:

- It provides quality associate degree, certificate, and continuing education programs that lead to transfer, employment and/or personal enrichment.
- It extends the reach of its programs and services, and thus educational opportunity, to meet the learning needs of those who cannot readily access collegiate educational opportunities because of academic, physical, economic, cultural, or geographic boundaries.
- It links with leaders of the region's businesses and industries to assist in developing a vital, current, and educated workforce.
- It serves as a cultural and recreational destination, presenting opportunities for area residents to attend activities that feature stimulating and popular entertainment and ideas.
- And, acting as a significant element in a larger regional learning community, the College works with K-12 and university teachers, leaders, and learners to ensure a seamless and successful transition from high school, to the associate degree, to the baccalaureate degree, and beyond.

It is through its role as one institution with one set of shared values and principles, yet with multiple physical and virtual points of access, that the College works to define itself.

Evaluation of Mission Achievement

The College views education as a dynamic process that brings to the community a diverse, constantly changing set of learning opportunities; opportunities that grow, change, transform and multiply as the community and our learners confront and react to ever present change. Thus, to fully meet our mission, the College participates in ongoing self-assessment and review in order to enhance and improve instructional programs and services to students and the county we serve.

STATEMENT OF VALUES

The students, faculty, support staff, administration and Board of Trustees of Montgomery County Community College uphold the following values:

Learning

To support this value, the College:

- Promotes learning as a lifelong activity.
- Encourages student centered learning.
- Recognizes that learning is important in and of itself.

Accessible and Affordable Educational Opportunity

To support this value, the College:

- Provides equal opportunities in education and employment.
- Offers support services to assist students in meeting their educational goals.
- Makes programs and services available at an affordable cost.
- Provides educational services to the community.
- Offers programs and services at convenient locations and times.

Quality Programs and Performance

To support this value, the College:

- Provides up-to-date learning resources, tools and technologies within the framework of our financial support.
- Evaluates programs and services to improve institutional effectiveness.
- Promotes accountability, initiative, innovation and integrity.
- Provides a collegial work environment that rewards excellence, offers opportunities for professional development, and encourages teamwork and meaningful involvement in decision making.

Fairness and Equity

To support this value, the College:

- Respects all people without prejudice or discrimination.
- Strives to deal fairly with all people.
- Encourages all members of our College community to communicate openly, honestly and with integrity.
- Promotes tolerance, appreciation, and understanding of alternative cultural and intellectual ideas.

Individual Worth

To support this value, the College:

- Is dedicated to each student's intellectual, personal and ethical growth.
- Respects the opinions of members of the College community and encourages open exchanges of ideas.
- Provides opportunities for the intellectual, personal, professional and ethical growth of faculty, support staff, administrators and members of the Board of Trustees.

Community Service

To support this value, the College:

- Responds to the needs of the community it serves.
- Plans educational programs with business and government.
- Cooperates with other educational providers.
- Provides opportunities and activities that culturally enrich the community.

A STRONG LEGACY, A SECURE FUTURE

Montgomery County Community College was formally founded by the Montgomery County Board of Commissioners on December 8, 1964. The College continues to be sponsored by Montgomery County.

Montgomery County Community College is approved as an institution of higher education by the Board of Education of the Commonwealth of Pennsylvania. The College is authorized by the Board to award associate degrees in arts and sciences, as well as appropriate diplomas and certificates. Montgomery County Community College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, 267-284-5000.

Our operating funding sources are tuition, the Commonwealth of Pennsylvania and Montgomery County. In addition to support from the Commonwealth, County and other organizations, we benefit from the Montgomery County Community College Foundation, which raises funds to help the College develop programs, facilities and services.

OUR LOCATIONS

Central Campus
340 DeKalb Pike, Blue Bell, PA 19422
215.641.6300

West Campus
101 College Drive, Pottstown, PA 19464
610.718.1800

Virtual Campus
mc3.edu/virtual
215.641.6515

The Culinary Arts Institute
1400 Forty Foot Road, Lansdale, PA 19446
267.646.5970

ADMISSIONS

CENTRAL CAMPUS

Montgomery County Community College
340 DeKalb Pike
Blue Bell, PA 19422
215-641-6551
admissions@mc3.edu

WEST CAMPUS

Montgomery County Community College
101 College Drive
Pottstown, PA 19464
610-718-1906
admissions@mc3.edu

ADMISSIONS POLICY

The College provides accessible and affordable educational opportunities to all who apply. The Admissions Policy is intended to support the success of applicants as they enroll at the College. Admission to Montgomery County Community College is open to the following individuals:

- All high school graduates, General Equivalency/Commonwealth Diploma recipients, and transfer applicants from another College or University.
- Any person who is a non-high school graduate and approved for enrollment in the Early Admissions program.
- Any non-high school graduate and non-General Equivalency recipient over the age of 18 who demonstrates through assessment testing an ability to benefit from postsecondary educational experiences.

Montgomery County Community College has a strong institutional commitment to diversity and is committed to assuring equal opportunity to all persons as articulated in the EEO and Diversity Policy.

APPLICATION PROCESS

The College requires prospective students to submit an application for admission to enroll. All applicants are required to submit a high school transcript or transcript from their most recent educational experience. All applicants seeking admission to a program of study must complete a placement (assessment) test or provide proof of test exemptions as stated in the College's Placement and Testing Policy in order to establish academic readiness prior to entering a degree program. Applicants who have never graduated from high school and who have not completed the GED may be admitted to the College provided they are over the age of 18 and demonstrate through placement testing an ability to benefit from postsecondary educational experiences. For those who do not demonstrate the appropriate level of academic preparation necessary for success, the applicant must enroll in developmental courses or in an Adult Basic Education program as outlined in the College's Placement and Testing Policy.

COMMONWEALTH SECONDARY SCHOOL DIPLOMA

The Department of Public Instruction of the Commonwealth of Pennsylvania will issue a high school diploma to students who never completed high school upon receipt of an official college transcript showing satisfactory completion of 30 college credits. A high school diploma may not be issued in advance of the student's high school graduation class. Students who pursue this program at the College may be limited to part-time study until the diploma is earned. Please refer to the Pennsylvania Department of Education's website at www.pde.state.pa.us for more information on the Commonwealth

Montgomery County Community College is committed to assuring equal opportunity to all persons and does not discriminate on the basis of race, color, sex, religion, ancestry, national origin, age, applicable disability, or sexual orientation in its educational programs, activities, admissions, or employment practices as required by Title IX of the Educational Amendment of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, and other applicable statutes. Inquiries concerning Title IX and or 504 compliance should be referred to the Director of Equity and Diversity Initiatives, 340 DeKalb Pike, Blue Bell, PA 19422, (215) 619-7413 V/TTY. Central Campus students seeking information regarding services for students with disabilities should contact the Director of Services for Students with Disabilities at 340 DeKalb Pike, Blue Bell, PA 19422, (215) 641-6575 V. West Campus students should contact the Coordinator of Disability Services at 101 College Drive, Pottstown, PA 19464, (610) 718-1853 V/TTY.

diploma. Once the 30 college credits have been completed, the student should request an official transcript from Enrollment Services to be mailed with the official diploma request form and PA State identification to the Pennsylvania Department of Education.

GENERAL EQUIVALENCY DIPLOMA (GED)

Montgomery County Community College offers both a GED Preparation Program and administration of the GED test. Please visit www.mc3.edu/ged or call 610-819-2056 for more information about testing. For information pertaining to the GED preparation workshops held at the College, please contact 610-718-1807 for information on a high school equivalency diploma offered by the Commonwealth of Pennsylvania, see the previous section.

READMISSION BY STUDENTS IN GOOD STANDING

After an extended absence, Montgomery County Community College students who are in good academic standing do not need to submit a new College Application. Simply contact Enrollment Services to verify your residency and address information and contact the Student Success Center to schedule an appointment with an academic advisor or counselor.

ACADEMIC RENEWAL FOR PREVIOUS STUDENTS

Academic Renewal, a one-time-only option, provides eligible students with an opportunity to restart their academic records by resetting their GPA and Cumulative Credits Earned for past academic performance once they demonstrate recent success.

To be eligible for Academic Renewal, the student must have:

- never been granted Academic Renewal
- an enrollment break of 3 or more consecutive years with a GPA less than 2.0
- completed 12 or more credits after the enrollment break with a GPA of 2.0 or greater
- met with an advisor or counselor to review the Academic Renewal Policy including the application process

For more information regarding Academic Renewal, visit <http://www.mc3.edu/about-us/policies/109> or visit the Student Success Center and talk with an advisor or counselor.

READMISSION FOR STUDENTS PREVIOUSLY DISMISSED FOR DISCIPLINARY REASONS

Former students who have been dismissed from the College for disciplinary reasons must first receive approval from the Vice President of Student Affairs and Enrollment Management before being readmitted. This written approval must be received in Enrollment Services before the College can process the application.

ADMISSIONS PROCEDURE FOR INTERNATIONAL STUDENTS

International students are citizens of another country who are authorized to remain in the United States for a temporary period as non-immigrant students (on an F-1 visa) and who intend to return to their home country after graduation. International students must complete International Student Application (F-1 visa). After completing the application, we will issue international students a Letter of Admissions and the SEVIS Form I-20 Certificate of Eligibility for Nonimmigrant (F1) Status to use when applying for their F-1 visa at a US Consulate Office located in their home country. To apply for admission to Montgomery County Community College and for issuance of the I-20, international students

must complete an application and send all documents by the application deadlines. Students transferring from another U.S. institution of higher learning should submit their completed application packets at least three weeks prior to the beginning date of the semester they wish to start. Only international transfer students are eligible to apply for entrance into the summer sessions.

Students applying for a Change of Non-immigrant Status must submit the International Student Application and all required documents before receiving an I-20. All international students must submit an Immunizations-Submission Form along with documentation proving vaccination of Measles, Mumps, and Rubella as well as a negative screening/diagnosis of Tuberculosis. Students applying from overseas must submit this requirement within 60 days after arrival in the U.S. Transfer and Change of Status students must submit this requirement within 60 days of receiving their I-20. Failure to submit immunization documents by the deadlines will result in a registration hold and could affect visa status.

International students must demonstrate English proficiency to enroll in an associate's degree program. Students can submit a TOEFL (Test of English as a Foreign Language) or take the placement test on campus achieving college-ready scores for admission. Per federal regulations, all F-1 students are required to enroll in no less than 12 credits a semester. To apply or to find out more about international admissions, international students should contact the Office of Admissions at 215-641-6551 or visit <http://mc3.edu/adm-fin-aid>.

ADMISSIONS PROCEDURE FOR PROGRAMS WITH SPECIAL ADMISSIONS REQUIREMENTS

Admission is selective for the Dental Hygiene, Medical Assisting, Medical Laboratory Technician, Nursing, Radiography, Surgical Technology, and Police Academy Act 120 training programs. Each program has specific admissions requirements and may have prerequisite coursework that must be completed before student is eligible to be admitted into the respective program. College coursework can begin before formal acceptance into each respective program.

For the admissions prerequisite requirements for these programs, please refer to the prerequisite curriculum listing for the programs in this catalog. Due to the competitive nature of these programs and class-size limitations, the College does not guarantee immediate acceptance into these programs even if you meet the admissions prerequisites. For certain programs, students may have to wait until there is space available in the class.

EARLY ADMISSIONS

Applicants for Early Admission including Dual Enrollment must follow the same procedures as applicants seeking regular admission, as well as provide approval from their high school or diploma granting institution and parent/guardian. An applicant younger than 15 years of age must also schedule a personal interview through the Director of Admissions that convinces the interviewer that the student has the ability to participate at a satisfactory level. Admissions decisions for Early Admissions students are made by a team of representatives from the Admissions Office, Academic Affairs, and the Student Success Center.

DUAL ENROLLMENT PROGRAM

The College's Dual Enrollment program enables current high school and home-schooled students to earn college credits prior to graduating from high school. Some dual enrollment students may also be granted

dual credit for college course(s) to fulfill certain high school graduation requirements if their high school grants permission. The program is limited to students who have reached the age of 15 prior to the start of the semester for which they wish to enroll. If students desire dual credit, they are responsible to ensure with their high school that courses completed at the College will fulfill specific high school graduation requirements. Students who are younger than 15 years of age may apply to participate in the Dual Enrollment program, please contact the Office of Admissions for specific requirements and to schedule an interview.

Most students who are approved for the program enroll on a part-time basis. A student interested in the Dual Enrollment program must submit the online Dual Enrollment application and use the Dual Enrollment Registration Form to register for courses. The Dual Enrollment Registration Form requires the signature of the student and parent/guardian; if the student desires dual credit, a signature from a high school representative is required. Students must meet the prerequisites for the course(s) they wish to take, including completion of the Reading, Writing, and Math placement tests when required. Exemptions may apply (please see College's Competency Validations in Academic Readiness Policy).

For more information about our Dual Enrollment program, please visit www.mc3.edu/dual-enroll or call the Office of Dual Enrollment Initiatives at 610-718-1916 or email us at dualenroll@mc3.edu.

Gateway to College

Central Campus

Student Success Center, College Hall
Esau Collins
215-461-1114
ecollins@mc3.edu

West Campus

Student Success Center, South Hall
Lori Davidson
610-718-1841
ldavidso@mc3.edu

The Gateway to College program supports students who are at risk of not completing or have disengaged from their high school education. Through the program, students complete their high school diploma requirements at community and technical colleges while simultaneously earning college credits toward an Associate's degree or certificate.

Program Benefits:

- This is a scholarship program that pays for student tuition and books
- Earn your high school diploma
- Attend class in a supportive and educational environment
- Earn college credit toward an Associate's degree or certificate while taking classes toward high school diploma.

Program Requirements:

- Students 16 to 21 years old who have dropped out of high school for at least 6 months
- Students must be behind in high school credits for age or grade level
- Possess reading skills at an eighth grade level or higher

- Students must be referred and sponsored by a partnering school district or community partner.
- Have the desire and determination to learn and to earn a high school diploma and a college degree (by age 21 and willing to commit two or more years)

For more information about our Gateway to College program, please visit <http://mc3.edu/student-resources/outreach> or call one of our offices listed above.

HONORS PROGRAM

The Honors Program offers a unique opportunity for high ability students to thrive intellectually in a comfortable and challenging academic environment. In small classes of 15 or fewer, Honors students, through creative and stimulating teaching with professors as mentors and facilitators, assume responsibility for their learning. The program provides the opportunity for highly motivated students to expand the limits of their intellectual, cultural and social horizons in a caring, stimulating atmosphere.

The Honors student must complete 18 credits in Honors to graduate with an Honors designation. In addition, Honors students must complete three one-credit Honors Colloquia. The program also requires that students participate in two Honors activities each academic year. These experiences may involve off-campus activities such as: Honors debates; trips to theaters, symphonies, museums; visits to special programs at area universities; Sleeping Bag Seminars sponsored by the National Collegiate Honors Council.

The admission requirements for the Honors Program at Montgomery County Community College for the recent high school graduate are any two of the following.

1. Earned a 3.5 or higher GPA in high school
2. Graduated in the top 15% of high school class
3. Scored in the top 15% on the College placement test
4. Obtained above average SAT scores

In order to remain in the program, a student must maintain a grade point average of 3.25.

Note: Qualified students may enroll in Honors sections without being enrolled in the Honors Program. For more information, call 215-641-6415.

TRANSFER STUDENT ADMISSIONS

The College applies the following guidelines in order to award academic credit for prior learning:

- I. The consideration of transfer credit will be determined by course equivalencies, including expected learning outcomes, with those of the College's curricula and standards.
- II. Generally, credit will only be transferred from regionally accredited postsecondary institutions; however, the College recognizes valid educational experiences worthy of consideration outside of regionally accredited schools and has procedures to accommodate these based upon approval from the academic coordinator/ program director and documentation of course equivalencies, including expected learning outcomes.

- III. In addition, the College awards academic credit and course placement to students based on previous academic, employment, military, and/or other learning experiences not earned in a traditional course. Credit is awarded for nationally recognized examinations [including Advanced Placement (AP) and College Level Examination Program (CLEP)], certifications, or by portfolio evaluation of prior learning, based on course equivalencies, including expected learning outcomes.
- IV. Presented credits that meet grade and curricular requirements will be accepted at the College, up to seventy-five percent (75%) of the credits required for an associate's degree or certificate program. Transfer credit for specific majors are accepted to the extent that acceptance of the credits would not be counter to discipline-specific accrediting agencies.
- V. Developmental coursework is not accepted for transfer credit but will be transcribed for prerequisite purposes.
- VI. Courses with a grade value of 2.0 (C) or higher will be considered for transfer. Courses with a grade value of "pass" or "satisfactory" will be accepted as transfer credits when the transcript states that a "pass" or "satisfactory" is equivalent to a C or above. Transfer courses will be awarded credit with no grade value (quality points) assigned.
- VII. In general, courses will be considered for transferability regardless of their age; however, some programs may restrict the age of courses used for program admission, prerequisite purposes and/or program completion.

For up-to-date information on opportunities for advanced standing and prior learning credits, please visit the College website at <http://mc3.edu/adm-fin-aid/prior-learning-assessment>. Here are some of the more common opportunities to receive advanced standing or credits for priority learning:

Transfer of Credits

- I. Only official transcripts or score reports sent directly to Enrollment Services from the issuing institutions/organizations or delivered in a signed, sealed envelope will be reviewed. Facsimiles and/or unsealed documents are not considered official. Official documents for credits earned prior to admission should be submitted no later than the end of the first semester of attendance to meet subsequent course prerequisites and provide for accurate academic planning for degree completion. External courses and exams completed while currently in attendance should be submitted as soon as possible.
- II. Students who have credits from foreign educational institutions must have their transcript translated and reviewed by a NACES accredited credential evaluation service. Military personnel are eligible to have their military experience and training evaluated for transfer credit by submitting an approved form (for example, a DD Form 214) and military transcript. Credit may be awarded for military training that has been evaluated by the American Council on Education and assigned a recommended credit value when the training is directly related to the student's program of study.
- III. The MCCC transcript will only reflect the total number of credits equated; individual course equivalencies awarded will not appear.

- IV. The College operates under the semester system. If a student seeks transfer credit for work completed under the "quarter" system, credits will be transferred in as follows:
- A one-year course of nine credits, taken over three quarters will transfer in as six semester hours.
 - Two quarters of coursework totaling six credits will transfer in as a two-course sequence of two credits each.
 - One quarter of coursework totaling three credits equals two semester credits.
 - If one course of a two-course sequence is completed, the student will receive two transfer credits, which may, with the appropriate discipline approval, satisfy a course prerequisite. Students must complete the minimum number of credits to graduate from the College.

AP Exams

Applicants from secondary schools offering college-level courses, as well as those who have gained educational experience from other sources, may take the appropriate Advanced Placement Examination from the College Board.

Students should request that the score and the essay portion of their examination be sent to Enrollment Services. The course for which credit is granted must be acceptable toward the student's degree. For the most up-to-date listing of AP credits awarded, please see College's website for more information.

CLEP Exams

Students may receive credits if they have successfully completed the CLEP (College Level Examination Program) sponsored by the College Entrance Examination Board (CEEB).

CLEP exams with scores of 50 or higher for equivalent courses are accepted to meet degree requirements. Montgomery County Community College is an official CLEP testing center. Please visit www3.mc3.edu/clep for information regarding testing dates and registration.

National Evaluations

American Council on Education (ACE)

ACE assesses non-collegiate instructional programs to provide credit recommendations. If you participated in a course through an organization that was evaluated by ACE, you can request a copy of your transcript from that organization. If those credit recommendations are equivalent to a course(s) in your MCCC program, you may be eligible for credit(s).

Military

Military personnel are eligible to have their military experience and training evaluated for transfer credit by submitting a DD 214 and military transcript. Credit may be awarded for military training that has been evaluated by the American Council on Education and assigned a recommended credit value when the training is directly related to the student's program of study.

Students Occupationally and Academically Ready (SOAR)

SOAR prepares students for college and careers in high priority occupations. Students who have participated in an approved SOAR

program through their high school's Career and Technical Education Program may receive credit for skills learned towards their certificate or degree. Visit CollegeTransfer.net to see how your high school credits may be accepted by Montgomery County Community College.

Prior Learning

The College may provide credit for prior learning that does not come from an academic setting or by transfer of credit from another institution. Students must be enrolled as degree seeking students in the College in order to qualify for Prior Learning credit. Students may then elect to earn

credit for specific courses by submission of a comprehensive portfolio that demonstrates that the student has met the learning outcomes for the course, or by taking a challenge examination developed and administered by department faculty. There is a fee for the review of materials and for the awarding of credits. Additional information on Prior Learning transfer credit is available on the College's website.

Industry Certifications

The College recognizes various organizations that award professional certification, licenses and training in specific industry areas and grants credit based upon discipline faculty agreement on course equivalencies. Certifications and licenses must be current to be considered for credit. Students are required to submit a copy of their certification or license to the Records and Registration Office with their request for credit. A list of organizations for which credit is awarded is available on the College's website.

Reverse Transfer

Students who have transferred from Montgomery County Community College without earning an associate degree or certificate may complete program requirements by transferring back courses that have been earned at other institutions and are approved as equivalent to the degree requirements of a program of study at the College, in accordance with the transfer of credit policy.

Appeal Procedures

Academic transcripts are evaluated based upon the procedures established in the Transfer of Credit Policy and through the guidance provided by the academic disciplines. When transcripts are received for which there appears to be no Montgomery County Community College equivalent, or for which no equivalency can be established based upon the course name and course description, the academic discipline may be called upon to make a determination.

It is possible that errors in the articulation of coursework or prior learning can occur. In the event a student believes that this has occurred, the appeal procedure is as follows:

I. Student should first contact the Office of Records and Registration to discuss the evaluation results with a transcript evaluator and provide any additional documentation needed to assist with the review (for example an updated transcript or college catalog, syllabus, or other documentation from the sending institution).

II. If the issue is not resolved, the student may request further review from the Director of Records and Registration/Registrar. After conferring with the student, the Director will present the student's claim along with any additional documentation to the Vice President for Academic Affairs and Provost, in consultation with the academic dean, and academic coordinator/program director, for consideration and will communicate the decision to the student in writing, within fifteen (15) working days during the academic Fall and Spring semesters. The decision of the provost is final.

III. Appeals to the Director of Records and Registration/ Registrar under item II above must be submitted no later than 90 days after the completion of the initial evaluation.

SHARED PROGRAMS

Through shared program arrangements, students can complete programs of study that are not offered by Montgomery County Community College but are available at Bucks County Community College, Community College of Philadelphia and Delaware County Community College. Students who enroll for these majors at the peer community colleges must be authorized by the Director of Admissions at both Montgomery County Community College and the host college to be eligible for program enrollment. The host college's sponsored tuition rate applies.

| HOST COLLEGE | MAJOR |
|--|---|
| Bucks County Community College | Fine Woodworking (AAS) Furniture and Cabinet Making (Cert) Historic Preservation (Cert) Paralegal (AAS and Cert) Sports Management (AA) Travel & Event Planning (AAS/Cert) Women's Studies (Cert) |
| Community College of Philadelphia | Art-Photography (AA) Chemical Technology (AAS) Interpreter Education (AA) |
| Delaware County Community College | Architecture Technology (AAS) Automated Manufacturing/ Robotics Technology (AAS) |

ACADEMIC TERMS AND FLEXIBLE LEARNING OPTIONS

COURSE DELIVERY

The College offers a variety of academic semesters and sessions. The regular fall, spring, and summer semesters are approximately fourteen (14) weeks in length with one additional week for final examinations.

CONTINUOUS PROGRAMS OF STUDY

Continuous Programs of Study consist of courses offered 12-months out of the year to complete an associate degree in about 16 months. There are 27 associate degree programs available through continuous study.

ACCELERATED DELIVERY

Accelerated Delivery options are also available. Students can complete a variety of select courses in as little as one week. Courses are also available in 2-, 3-, 6-, 7-, 8-, 10-, and 12-week options. Accelerated degree programs are available in Liberal Studies and General Studies. For more information about flexible learning options, please view the Academic Calendar, visit <http://mc3.edu/academics/academic-calendar>

VIRTUAL CAMPUS

The Virtual Campus offers courses and programs in a variety of technological platforms including online, hybrid (blended online and classroom) and videoconferencing. Courses are taught in traditional semesters and accelerated sessions to students who are motivated and independent learners. Currently, the College offers several completely online degrees through Virtual Campus. Refer to <http://www3.mc3.edu/virtualcampus> for course offerings, programs, and support services.

TESTING AND PLACEMENT

CENTRAL CAMPUS

College Hall 264
(2nd Floor Brendlinger Library)
215-641-6646
testing@mc3.edu

WEST CAMPUS

South Hall 163
610-718-1995
westtesting@mc3.edu

Montgomery County Community College offers testing services to meet the testing needs of students, faculty, staff, and the community in promoting student learning and success. The College's Testing Center offers these services:

- Placement testing (Accuplacer)
- Proctor class make-up exams
- Distance learning (online) proctored exams
- CLEP exams
- Workforce certification and licensure exams
- Preparation for placement test
- SAT Preparation Classes
- GED Preparation Classes and GED exam

Students with disabilities can receive testing in a distraction-free environment with special accommodations or adaptive technology available as needed. Hours of operation and other important information may be found at <http://mc3.edu/adm-fin-aid/testing-placement>.

PLACEMENT TESTING

Degree-seeking students must demonstrate their college readiness in reading, writing, and math in order to be placed in the appropriate classes. There are many ways students can demonstrate college readiness. Students may submit score reports (PSAT, SAT, ACT, PSSA, AP, etc.), dual enrollment courses, or college transcripts for evaluation. If students do not have these items or the scores or grades are not high enough, students are required to take the College's placement tests. The College offers students many ways to prepare for placement tests and

preparing for placement tests is highly encouraged. This preparation can take place both on and off campus. For more information, please review the College's Academic Readiness Policy and list of competency validations at <http://mc3.edu/about-us/policies/111>.

OTHER TESTING

Students taking exams for distance-learning (online) classes, classroom make-up exams, CLEP test, or workforce certifications or licensure will receive proctored testing in a quiet, secure environment. Appointments are required for these tests.

TUITION AND PAYMENT

TUITION AND FEES

Tuition and fees are established by the Board of Trustees of the College. The College reserves the right to change tuition and fees at any time. Please visit the College's website to review the approved tuition and fees at the time of enrollment at <http://mc3.edu/adm-fin-aid/paying>.

The student is responsible for tuition and fees. If the student is receiving financial aid or other scholarship monies, any remaining balance must be paid by the student. In the event of the loss of financial support, the student is responsible for the full amount due to the College. If the student is not planning to attend classes, the student must drop classes in accordance with the refund policy to avoid charges. Students may not register until their financial obligations to the College are satisfied. Students anticipating difficulty in meeting their future financial obligations should apply for financial aid or for the Deferred Payment Plan through the Office of Enrollment Services.

RESIDENCY REQUIREMENTS

IN-COUNTY TUITION

Legal residency in Montgomery County for the purpose of in-county tuition is established upon meeting the requirements for in-state tuition and completion of six (6) months of continuous residence in Montgomery County at the time of registration as a student. Minors, under the age of 18, or a student whose age is 18 to 23 and is claimed as a dependent on his/her parent's Federal Income Tax Return, shall be presumed to have the domicile of the parents or guardian and must use the address of the parents or legal guardian as his/her permanent address/residence. Establishing an address for the purpose of attending college does not establish residency. The proof for establishing residency or a change of residence rests with the student. Residency may be established in less than six months if positive action has been taken to establish residency, such as a lease or purchase of a permanent independent residence (student's name must be on the lease or purchase agreement and student will have moved into residence for purposes other than attending college); Montgomery County voter registration card showing the new address; PA Vehicle Registration Card with the new address or update card from the DMV.

IN-STATE TUITION

To establish residency in the Commonwealth of Pennsylvania, students must demonstrate continuous residence in the Commonwealth for a period of twelve (12) months prior to registration as a student. Minors, under the age of 18, or a student whose age is 18 to 23 and is claimed as a dependent on his/her parent's Federal Income Tax Return, shall

be presumed to have the domicile of the parents or guardian and must use the address of the parents or legal guardian as his/her permanent address/residence. Establishing an address for the purpose of attending college does not establish residency. The proof for establishing residency or a change of residence rests with the student.

DEFERRED PAYMENT PLAN

To assist students in meeting their financial obligation to the College a Deferred Payment Plan is offered for tuition and fees.

To qualify for the program, a student must:

- Be registered for three or more credits in a current semester.
- Be a continuing education student registered in a qualified technology and/or career program that leads to certification or public service programs whose tuition is over \$400. The programs must meet for 10 weeks or more.
- Pay a \$35 non-refundable Deferred Payment Plan set up fee upon submission of the Deferred Payment Plan Application, along with the initial payment.
- Complete all required information of the Deferred Payment Plan Agreement for mail, fax, scan and email enrollment. Your payment must be received with this enrollment form.
- The deferred plan cannot be processed without payment, (initial payment and set-up fee). If you are enrolling in person please be prepared to make your initial payment, including the set-up fee.

If you are taking a continuing education course, please contact the Office of Enrollment Services at 215-641-6551 or email payment@mc3.edu.

FINANCIAL AID

CENTRAL CAMPUS

College Hall, 215-641-6566
financialaid@mc3.edu

WEST CAMPUS

South Hall 151, 610-718-1906
financialaid@mc3.edu

Montgomery County Community College's Financial Aid Office offers an active financial aid program that is designed to bring educational expenses within the reach of students with varying financial resources. The Financial Aid Office can help students determine their eligibility for financial aid, and assist them in applying for and securing a financial aid package that will meet their individual needs.

The College administers federal, state and institutional financial assistance, and offers these financial aid programs based on need:

- Pell Grants
- SEOG (Supplemental Educational Opportunity Grant)
- PHEAA Grants (Pennsylvania Higher Education Assistance Agency)
- Federal Work Study
- Subsidized Federal Stafford Loans

Federal Financial Aid Programs Non-need based:

- PLUS (Parent Loans for Undergraduate Students)
- Federal Unsubsidized Stafford Loans

The College also offers over 70 different scholarships, the majority of which are need-based, through the Montgomery County Community College Foundation. For more information on scholarships, call Financial Aid at 215-641-6566 or go to <http://mc3.edu/adm-fin-aid/fin-aid>.

How to Apply for Financial Aid

To apply for financial aid, students must complete the Free Application for Federal Student Aid (FAFSA), which is online at www.fafsa.ed.gov. Students must reapply each academic year for a financial aid package. The Financial Aid Office first awards students who file by the following deadline dates, then awards students by date of application.

| | | | |
|------------------|---------|-------------|------------------------------------|
| Deadline: | May 1 | For: | Foundation scholarships |
| | May 1 | | PHEAA state grants |
| | May 1 | | SEOG grants and Federal Work Study |
| | June 30 | | Federal Pell Grants |

How Financial Aid is Awarded and Paid

The Financial Aid Office awards aid based on financial need. Financial need is the difference between the cost of attendance (COA) and the estimated family contribution (EFC). A student's EFC is determined by a federal formula that uses information provided by the applicant on the Free Application for Federal Student Aid (FAFSA). Generally, the Financial Aid Office offers a student a financial aid package consisting of grants, loans, scholarships and work-study. We first award gift aid such as grants and scholarships to students with high financial need, followed by self-help aid such as work study and loan funds.

Students who plan to attend the entire academic year receive half of their aid for the Fall semester and half for the Spring semester. The Business Office applies funds to the student's account, deducts any tuition and fees, and refunds the student any excess funds.

Financially eligible students may participate in the Act 101 Program, a state-funded program that offers one-on-one tutoring and counseling services, study skills workshops and individual guidance to help ensure that the students succeed in all courses and achieve their academic goals. Students are encouraged to take advantage of these resources to support their academic progress. Satisfactory academic progress is required to maintain eligibility for financial aid.

Financial Aid Policies

- Must be a U.S. citizen or national, U.S. permanent resident, citizen of certain Pacific Islands, or other eligible noncitizen.
- Must be formally admitted to the College and have a high school diploma or GED.
- Cannot be in default on a federally funded loan or owe a refund on a federal grant.
- Must be enrolled for at least six academic credits to be eligible for most financial aid programs. Only certain federal Pell Grant recipients can receive financial aid at a less than half-time status. Financial aid does not cover audited courses.

Students:

- Must attend the classes for which they are registered or they will not be eligible for the amount of aid being received.
- Who completely withdraw at or before 60 percent of the term may have to return a portion of their unearned federal financial aid and may owe tuition, fees and a repayment of federal funds. Students earn their financial aid based on the percentage of the term that they have completed. Federal funds must be repaid in the following order: unsubsidized Stafford loan, subsidized Stafford loan, PLUS Loans, federal Pell Grant and FSEOG funds. More detailed information can be found at www.mc3.edu/adm-fin-aid/fin-aid/understand-fin-aid/return-funds
- Cannot receive financial aid for a class they intend to audit.
- Applying for a federal Stafford Loan must complete an entrance and exit interview and complete a Master Promissory Note to understand their obligation for loan repayment.
- With unusual circumstances such as death, disability, loss of income, etc. may submit a written request with supporting documentation to the Financial Aid Office for special consideration of the status of their financial aid.
- Who perform services in the Peace Corps or under the Domestic Volunteer Service Act of 1973 or comparable service for a tax-exempt organization of demonstrated effectiveness in the field of community service may be eligible for a deferment on a FFEL/Direct Loan.
- Students are eligible to receive Federal Pell Grant funds for the equivalent of 6 full time years or 12 full time semesters.
- PHEAA State Grant recipients must comply with PHEAA's Academic Progress Policy and meet PHEAA's eligibility requirements.
- The Financial Aid Office determines your financial aid award based upon your registration status as of the census date of each semester. Census dates can be found online at <http://mc3.edu/adm-fin-aid/fin-aid/understand-fin-aid/attendance>.
- Financial Aid for the semester will not be disbursed until all courses a student is registered in for the semester have started.

Student Financial Aid Satisfactory Academic Progress Policy

Federal regulations require that all financial aid recipients meet federal academic progress standards while taking courses toward a degree or certificate program. This policy applies to all terms of enrollment regardless of whether or not the student received federal aid. Progress is measured by the student's cumulative grade point average, percentage of credits successfully completed and timeframe or pace toward completion of the program. The College checks progress at the end of the fall and spring semesters.

Progress Standards

Completion Rate (67% Rule): Students must, at a minimum, receive a satisfactory grade in courses attempted by completing 67% of the credits for which they are enrolled. This calculation is performed by dividing the number of credits earned by the number of credits attempted. The College begins checking completion rates after the student has attempted 12 credits. The College counts all withdrawals and incompletes as attempted credits.

Maximum hours (150% Rule): Students may only receive financial aid up to the point at which they can no longer complete the program of study within 150% of the program length. The College counts all credits attempted and all transfer credits applicable to the student's program. This calculation includes all semesters including those for which the student received no federal aid. For example, a student whose program requires 60 credits may only attempt up to 90 credits in that program.

Developmental Courses/English as a Second Language Courses:

Students may receive federal financial aid for a maximum of 30 semester hours of developmental coursework. There is no limit on ESL courses. Developmental and ESL courses are evaluated in the student's progress calculation including completion rate, maximum hours, and cumulative grade point average.

Cumulative GPA Minimum Requirements (GPA Rule): A student must earn at least the minimum cumulative grade point average as shown in the table below based upon the number of credits attempted.

| Cumulative Credits Attempted | Minimum Acceptable Progress Cumulative GPA |
|------------------------------|--|
| 12-23 | 1.51 |
| 24-35 | 1.75 |
| 36-47 | 1.83 |
| 48-59 | 2.00 |
| 60+ | 2.00 |

Withdrawals, Incompletes, Audits and Repeat Courses:

Withdrawals, Incompletes and Audits do not count as a passing grade. These grades are counted in attempted credits. Once an Incomplete grade has been changed to a passing grade then the student's progress can be recalculated upon written request by the student. Repeated coursework is also counted as attempted credits and all grades related to this repeated coursework are calculated into the student's financial aid GPA calculation.

Change of Major and Second Degrees: Once a student completes all the requirements for their program they can no longer receive financial aid unless they enter a new degree program. Students may apply for financial aid for the completion of two Associate degree programs. All applicable courses in the completed program will count as part of the 150% attempted credits in the student's second degree program.

Ineligibility for Financial Aid

Students who are on Academic Suspension or Academic Probation by the college are ineligible for financial aid. Students may still enroll without benefit of financial aid if they are on Academic Probation. Students who do not meet the progress standard and cumulative grade point average requirements will be ineligible for financial aid.

TUITION AND FEES REFUND POLICY

Tuition is fully refunded if we cancel a course. Otherwise, fees are refundable only in certain situations. To withdraw or drop courses, or substitute another class for a canceled course, please call or visit: Enrollment Services at either campus:

Central Campus, College Hall, 215-641-6551 • West Campus, South Hall 610-718-1944

The amount of a tuition refund is based on the date the student drops from a course.

Refund Policy for Regular Semesters (14 Weeks in Length)

| If Students Withdraw: | They Receive this Tuition Refund: |
|---|---|
| Prior to the first day of the semester | 100% refund of tuition and fees |
| To the end of the first week of the semester | 100% refund of tuition, no refund of fees |
| To the end of the second week of the semester | 50% refund of tuition, no refund of fees |
| To the end of the third week of the semester | 25% refund of tuition, no refund of fees |
| After the third week of the semester | No refund |

Refund Policy for Summer Sessions, Special Sessions, and Irregularly Scheduled Sessions and Courses (Less than 14 Weeks in Length)

| If Students Withdraw: | They Receive this Tuition Refund: |
|---|---|
| Prior to the first day of the semester | 100% refund of tuition and fees |
| To the day prior to the end of 10% of scheduled instruction | 100% refund of tuition, no refund of fees |
| To the day prior to the end of 20% of scheduled instruction | 50% refund of tuition, no refund of fees |
| After 20% of scheduled instruction | No refund |

Financial Aid Programs

| Grants | Amount | Who is Eligible? |
|--|--|--|
| Pell (federal program) | \$200-\$5,775 | Citizen/permanent resident |
| SEOG (federal and institutional program) | \$200-\$600 | Same |
| College work study (federal and institutional) | Varies - work max. 20 hours/wk @ \$8/hour | Same |
| Pennsylvania Higher Education Assistance Agency (PHEAA) tuition up to \$2,900 | Minimum \$100, Maximum is 80% of | Citizen/permanent resident - enrolled at least half-time. Resident of PA. |
| Loans | Amount | Who is Eligible? |
| William D. Ford Federal direct Loans | \$500-\$5,500 at least half-time. | Citizen/permanent resident - enrolled |
| PLUS* (parent loan, federal and state program) | Up to cost of education | Same |
| Scholarships | Amount | Who is Eligible? |
| Variety offered through The Foundation | Varies | Varies |
| Variety offered through The Foundation | Varies | Varies |
| To apply for financial aid, students must file the FAFSA. Students must reapply for financial aid every academic year. | | |

Appeals

If the student had mitigating circumstances that may have affected the student's academic progress the student may appeal their status. Mitigating circumstances include serious illness or accident involving the student; death, accident, or serious illness of an immediate family member or other mitigating circumstance beyond the control of the student. The student must complete the Financial Aid Academic Progress Appeal Form, provide acceptable supporting documentation and complete all required steps outlined on the form Process for Filing a Financial Aid Appeal for Academic Progress.

If the student's appeal is approved the student must follow the academic plan/recommendations by the College and successfully complete those courses with a grade of C or better in order to continue receiving federal student aid. Failure to follow the plan and successfully complete all registered courses during the semester of appeal will result in the student having to successfully complete courses on their own until the academic standards are met as described in this policy. Successful completion means the student receives a grade of A, B or C. Withdrawals, Incompletes or Audits do not count as a successful completion grade.

The Financial Aid Office will place a student in a Probationary status when an appeal for Unsatisfactory or Max Time progress has been approved. The student will remain in a Probationary status until they meet the minimum criteria for satisfactory academic progress as defined in Section I

Regaining Financial Aid Eligibility

Students who do not meet the Academic Progress policy requirements and choose to enroll at the College without financial aid assistance will have their progress checked at the end of that term of enrollment. If the student is successful the College will reinstate financial aid eligibility for subsequent semesters.

ACADEMIC RESOURCES, SPECIAL PROGRAMS, AND SERVICES

THE COLLEGE LIBRARIES

Central Campus, College Hall, 215-641-6596
West Campus, South Hall, 610-718-1864

The Brendlinger Library at Central Campus and the West Campus Library provide resources in all subject areas, with depth in areas appropriate to the curriculum. Personal interests and information needs may be pursued through a variety of resources available in both print and electronic formats including books, magazines, scholarly journals, newspapers, and government documents. Our web-based resources allow for access on and off campus. In addition, the Libraries offer books and music on CDs, educational films on DVD and via videostreaming, and feature films on DVD. We also offer wireless laptops for use anywhere on Central or West Campus. The Libraries strive to provide excellent service to our students. We welcome your questions and encourage you to ASK US!

DEVELOPMENTAL EDUCATION

Student success is a high priority at the College, and the College offers a variety of courses and services to prepare students for college level work. These developmental courses and instructional interventions, including Supplemental Instruction, subject-area tutoring, and refresher courses, work in tandem to prepare students for the challenges of college academics.

ACHIEVING THE DREAM

Achieving the Dream: Community Colleges Count is a national initiative that, in part, seeks to successfully move students from developmental education to credit, college level courses. Through its Achieving the Dream: Community Colleges Count participation over the past several years, the College has strengthened its dedication to student access and success by improving developmental instruction, curricula, and services. In 2011, the College was named a Leader College by Achieving the Dream for our work to support student success.

TUTORIAL SERVICES

Central Campus, College Hall 180
215-641-6452, lalcc@mc3.edu

West Campus, South Hall 159
610-718-1945, lalwest@mc3.edu

All Montgomery County Community College students are encouraged to use the resources available in Tutorial Services. Tutorial Services offers extensive peer, professional and paraprofessional face-to-face and online tutoring and learning support to students enrolled in the College's courses. Tutorial assistance, learning specialists, and workshops are available weekly both in-person and online. This free service is available whenever school is in session.

FOUNDATIONAL SKILLS LABORATORY

Central Campus, College Hall 168, 215-461-1150
mryan@mc3.edu
West Campus, South Hall 159, 610-718-1945
lalwest@mc3.edu

The Foundational Skills Lab, operating under Tutorial Services, offers structured learning assistance through tutoring, workshops, and instructional computer software for developmental and ESL courses. The FSL also offers placement testing preparation and integrated skills labs for developmental courses.

SUPPLEMENTAL INSTRUCTION

Supplemental Instruction (SI) is a program which offers peer-assisted study sessions for traditionally highly enrolled, low success rate college-level courses. Please contact jluddy@mc3.edu or call 215-461-1104 for more information.

LINK 2 SUCCESS PROGRAM

Link 2 Success is a transition program that intends to assist students, who test below set levels on all three placement tests, English, reading, and mathematics, to successfully transition to the College or into the workforce. This free program is offered on both of the College's campuses through a community partner.

FIRST YEAR INITIATIVES PROGRAM

Central Campus

Student Success Center
College Hall, 215-641-6577

West Campus

Student Success Center
South Hall, 610-718-1906

The First Year Initiatives Program strives to address the unique needs and concerns of first year college students in order to facilitate a successful transition from their high school, post-secondary or non-educational experiences. This intentional, comprehensive curricular and co-curricular initiative promotes an understanding and appreciation of a college education, and assists students with developing strategies and attitudes that will maximize academic success and prepare students to become life-long learners and responsible citizens and leaders.

Welcome Month

Welcome Month is designed to ensure that students transition to the College successfully and become aware of the resources available. The College extends its orientation program into the first month of classes; activities include workshops, sporting events, Student Club Fair and other student-oriented events.

Peer Mentoring

The purpose of the Peer Mentoring program is to increase a student's chance of academic and personal success in their first year of college by connecting them with successful upper level students who will assist them with their journey through college. Mentors help with unanswered questions, provide Blackboard and WebAdvisor tutoring, assist in navigating through the College processes and resources and provide campus tours and information. Program Goals:

1. Promote intellectual, social and moral development of students.
2. Establish effective connections between upper-level students and new students resulting in successful transitions, increased satisfaction and persistence of both groups.
3. Improve communication between students and College staff.

Early Alert

The purpose of Early Alert is to enhance student success through online communication between faculty, academic advisors and students when there is concern about the student's academic performance and/or class attendance. Students receiving early alerts are strongly encouraged to follow-up with faculty and academic advisors as well as seek support in our Tutorial Services Center.

ACT 101 PROGRAM

ACT 101 is part of a state program called the Higher Education Equal Opportunity Act, which encourages students who may be educationally underprepared and financially disadvantaged to attend college. ACT 101 provides students with special support services to help them achieve and reach their highest potential. Students in the ACT 101 program are eligible for the following services; free tutoring, counseling, personal growth and study skills workshops, and social and cultural events.

In order to qualify for the ACT 101 program, students must meet the following requirements:

- Be a resident of Pennsylvania.
- Have a potential for success.
- Be educationally underprepared.
- Qualify for financial aid or meet certain state-mandated income requirements.

Students who want more information on the ACT 101 program can indicate their interest in the program by visiting the Student Success Center at either campus or visit <http://mc3.edu/student-resources/outreach>, or call:

Central Campus, 215-641-6660
West Campus, 610-718-1834

KEYS (KEYSTONE EDUCATION YIELDS SUCCESS)

Central Campus

Student Success Center
215-641-6222, 215-641-6330

West Campus

Student Success Center
South Hall, 610-718-1936

Let KEYS open the door to a brighter future for you and your family, you do the work and KEYS will help support you succeed. Keystone Education Yields Success (KEYS) has been developed by the PA Department of Public Welfare in response to growing research that shows that individuals who earn a certificate or an associate's degree are better able to secure jobs with family sustaining wages, benefits, and opportunities for advancement. Montgomery County Community College KEYS students can enhance their odds of success through the KEYS program. Our students are securing careers in the medical field, education, technology, business, hospitality and other high demand occupations.

The KEYS program is designed to support TANF (Transitional Assistance for Needy Families-cash assistance) and SNAP (Supplemental Nutrition Assistance Program-food stamps) benefit recipients to succeed in community college.

Supportive services for KEYS students issued by the CAO or community college include:

- Student advisors/facilitator for career counseling, academic support and help with financial aid options
- Facilitating requests for supportive services available through the County Assistance Office (CAO).
- Connecting students to other needed community services.
- Paid child care assistance.
- Paid books and school supplies assistance.
- Paid job related professional fees and uniforms cost assistance.
- Paid Vocational Work Experience (VWE), in relation to your course of study.
- Paid transportation assistance (transPass, mileage, car repair, license, registration, inspection, and more).
- Computer laptop loan program.
- Referrals to community service agencies to support academic success and family stability.

To apply to KEYS, you first must contact your CAO caseworker. We cannot enroll anyone without an official referral from your local CAO.

These services are not guaranteed entitlements but based on your eligibility and availability of resources.

POWER PROGRAM

Lori Schreiber
Community Liason
215-461-1151
lschreib@mc3.edu

Lisa Barbiero
Program Advisor
215-641-6425
lbarbier@mc3.edu

The Power Program (Partnership on Work Enrichment and Readiness) is a career and educational exploration course for people in mental health recovery. This program is fully subsidized and allows participants the ability to earn two college credits upon completion.

In addition to the twice weekly class, participants are provided with individual advising to help develop a personalized career plan. A transportation stipend is available to eliminate any cost to the student. Some of the class topics highlighted in this program include: career assessment, resume writing, study skills, time management, professionalism, success skills for college, public speaking, information about college financial aid, disability services, and other college resources.

The class is open to individuals who have a mental health diagnosis, and are interested in participating in college coursework which focuses on career development.

NATIONAL HONOR SOCIETY

The College has a chapter of Phi Theta Kappa, the National Honor Society for community colleges. Phi Theta Kappa exists to recognize and encourage scholarship among students, to provide opportunity for development of leadership and service, to promote an intellectual climate for the exchange of ideas and provide stimulation for continuing academic excellence. The College's chapters, Alpha Kappa Zeta at the Central Campus was chartered in 1984 and Beta Tau Lambda at the West Campus was chartered in 2011. To be eligible for membership, students must:

- Maintain a 3.5 GPA, or above.
- Have earned a minimum of 12 credits from the College.
- Be of good moral character and possess recognized qualities of leadership.

Eligible students will receive an invitation to join once they have fulfilled the requirements. Contact the Student Leadership and Involvement Office on the Central and West campuses if you have any questions about joining Phi Theta Kappa.

STUDENT SERVICES

ACADEMIC ADVISING

Central Campus

Student Success Center, College Hall
215-641-6577
advising@mc3.edu

West Campus

Student Success Center, Room 151, South Hall
610-718-1906
advising@mc3.edu

Professional academic advisors are available in the Student Success Centers on both campuses to assist students with their advising needs. Academic advisors are assigned to students based on their program of study and will assist students in:

- Selecting a program of study that matches their career goals
- Clarifying challenges toward goal achievement and discussing potential solutions
- Identifying degree requirements and verifying progress toward graduation
- Developing an educational plan
- Following appropriate steps to transition to either the workforce or to another college

Advising services are available to all full-time and part-time students. Students are required to schedule an appointment to meet with their assigned advisor during their first semester and students are encouraged to meet with their advisor on a regular basis. Students are ultimately responsible for their course selections, as well as for the fulfillment of degree or certificate requirements.

COUNSELING SERVICES

Central Campus

Student Success Center, College Hall
215-641-6577, advising@mc3.edu

West Campus

Student Success Center, Room 151 South Hall
610-718-1906, advising@mc3.edu

The College has a staff of professional counselors to help students achieve academic success, emotional stability and to balance their academic and personal lives. Counseling provides an opportunity for students to discuss their concerns openly with a professional, to review options and make decisions after an objective consideration of facts and circumstances. Additionally, counselors assist students to explore career options and to cope with a variety of issues and concerns such as stress and time management.

The College's counseling services are available to all full-time and part-time enrolled students. Students needing on-going therapy are referred to community agencies. Strict confidentiality is maintained in the handling of every contact. We encourage students to seek individual counseling appointments. However, a counselor is also available on call during the day in the locations listed above to meet with students on a drop-in basis and respond to their brief questions and concerns.

TRANSFER SERVICES

TRANSFER PARTNERSHIPS

Our graduates are enthusiastically welcomed by four-year colleges and universities, both regionally and nationally. A variety of partnerships and agreements with four-year institutions have made it possible for students to maximize their experience and credits at the College before transferring to complete their bachelor's degree. Through our transfer partnerships, we have dual-admission relationships with over 20 four-year colleges in the area. When you graduate from Montgomery County Community College with an A.A. or A.S. degree and the required GPA, you are ensured admission to your intended four-year school if it is part of this program. We also design our curriculum tracks to meet the requirements of these schools, thus making it more feasible for your credits to transfer.

The College has formal partnership agreements with the following: Albright College, Alvernia University, Arcadia University, Bellevue University, Cabrini College, Chestnut Hill College, Cheyney University, Delaware Valley College, DeSales University, Eastern University, Gwynedd-Mercy University, Kutztown University, LaSalle University, Lehigh University, Messiah College, Peirce College, Penn State Abington, Philadelphia University's Accelerated Bachelor of Science Degree Completion (Evening) Program, Rosemont College, Saint Joseph's University, Strayer University, Temple University, University of Phoenix, Villanova University's Bachelor of Interdisciplinary Studies Degree Program, West Chester University, Widener University, and Wilmington University. We expect to add more partner schools in the future.

Additionally, most Partnership Programs include the opportunity for:

- A waiver of the application fee for dual-admissions students at partner institutions.
- Admission into a parallel bachelor's degree program with junior status.
- Acceptance of the College's A.A. and A.S. core curriculum.
- Scholarships/course discounts for Montgomery County Community College graduates with a specific GPA or higher who are included in the Dual Admissions or Letter of Intent program.
- Meeting with advisors at partner institutions.
- Attending events and meeting faculty and staff at partner institutions.
- Attending regularly scheduled Partner Days and Evenings with representatives from partner schools.

PROGRAM-TO-PROGRAM TRANSFER AGREEMENTS

The College also has program-to-program transfer agreements or guides with several of our partner schools, as well as with other four-year institutions. These agreements guarantee students who graduate with an Associate's degree the ability to transfer all of their credits to the specified four year institution and the ability to graduate with their bachelor's degree in two full-time years. Students are encouraged to contact their advisor to discuss the program-to-program agreements.

In addition, the College has eleven programs that are TAOC (Transfer Articulation Oversight Committee) compliant. The Transfer and Articulation Oversight Committee (TAOC) was established under section 24 P.S. §20-2004-C of Article XX-C of the Public Institution Code of 1949. The committee reports to the Pennsylvania Department

of Education. The programs that have become TAOC-approved include Business Administration, Communication, Computer Science, Criminal Justice, Education in the Early Years, Fine Arts, Social Sciences – Geography, Social Sciences – History, Mathematics, Social Sciences - Psychology, and Theatre. Students who graduate within any of these programs will be assured transfer as juniors into bachelor degrees in similar fields of study at any of the fourteen Pennsylvania State (PASSHE) universities. These include Bloomsburg University of Pennsylvania, California University of Pennsylvania, Cheyney University of Pennsylvania, Clarion University of Pennsylvania, East Stroudsburg University of Pennsylvania, Edinboro University of Pennsylvania, Indiana University of Pennsylvania, Kutztown University of Pennsylvania, Lock Haven University of Pennsylvania, Mansfield University of Pennsylvania, Millersville University of Pennsylvania, Shippensburg University of Pennsylvania, Slippery Rock University of Pennsylvania, and West Chester University of Pennsylvania. Additionally, Carlow University, Lackawanna College, Neumann University, Pennsylvania College of Technology, and Saint Francis University have also opted to participate in TAOC offerings. Students may learn more about TAOC offerings by contacting their advisor or by logging onto www.patrac.org.

ASSISTANCE WITH TRANSFER PLANNING

Students planning to transfer to four-year institutions should become familiar with the transfer process during their freshman year. Early in their first year, they should begin gathering information on one or more colleges and carefully plan for transfer. Students who need help may seek assistance from our advisors and counselors in the Student Success Centers. Transfer is more difficult in some highly specialized majors, and may require very strategic planning. Choosing a four-year institution and a program of study are important for successful transferability.

In addition to the Partnerships and Program-to-Program Agreements that benefit our students, the Student Success Center has developed Transfer Guides to describe how our courses fit into curricula offered by many area colleges. Transfer of credits should be a smooth process for students who carefully follow the guides and have earned grades of C or higher.

Four-year college representatives visit our campuses to meet with students for Transfer Fairs and Partner days and on designated evenings in the fall and spring. We also encourage students to use the resources available in the Student Success Center on either campus.

THE UNIVERSITY CENTER

The University Center provides a pathway for students to continue their education without leaving the footprint of the campus. Choose from various bachelor's, master's, doctoral degree programs, as well as several certificate programs from some of the most highly recognized four-year institutions in our area. Classes are conveniently held at both of our campuses and offer an opportunity for potential tuition discounts. Call 610-718-1931 for more information.

Albright College

- Bachelor of science in accounting (Both campuses)
- Bachelor of science in business administration (Both campuses)
- Bachelor of science in crime and justice (Both campuses)
- Bachelor of science in applied psychology and organizational behavior (Both campuses)
- Bachelor of science in information systems (Both campuses)

Alvernia University

- Bachelor of science in nursing (Pottstown Campus)
- Bachelor of science in healthcare science (Pottstown Campus)
- Master of science in nursing (Pottstown Campus)

Chestnut Hill College

- Bachelor of science in human services (Both Campuses)
- Master of science in administration of human services (Pottstown Campus)

Immaculata University

- Doctorate of education in higher education (Blue Bell Campus)

Temple University

- Master of science in education (Pottstown Campus)
- Certification in career and technical education (Pottstown Campus)

Villanova University

Bachelor of interdisciplinary studies in leadership studies (Pottstown Campus)

CAREER SERVICES

Central Campus

Student Success Center, College Hall
215-641-6577, careerservices@mc3.edu

West Campus

Student Success Center, South Hall
610-718-1906, careerservices@mc3.edu

Selecting an appropriate career path and finding employment are major goals for students. The College's Career Services Office provides career counseling services to students to help select a major and career, and job coaching services to students and alumni who are seeking full time career-oriented jobs; changing jobs or fields; or looking for part-time, summer or internship positions.

COOPERATIVE/INTERNSHIP OPPORTUNITIES

Cooperative/internship experiences offer our students the opportunity to gain valuable work experience in their field of study. The benefits and objectives of the College's Cooperative/Internship Program are to:

- Provide students with a cooperative/internship experience in which they may apply what they have learned in the classroom.
- Help student interns explore careers in their field of study so that they can make more thoughtful, intelligent career choices.
- Help students earn income (in many internships) that can support the cost of their college experience.
- Assist students' transition from college to a career.
- Help students develop general and specific occupational skills, knowledge, attitudes and behavioral patterns that will be required in their careers.

Interested students should contact the College's Internship Director of Job Placement and Internships at 215-641-6577, or the Academic Program Director or Faculty Coordinator of their appropriate discipline.

Internship announcements can also be accessed by students registered on our website at www.mc3.edu.

SERVICES FOR STUDENTS WITH DISABILITIES

Central Campus

Disability Services Center, College Hall
215-641-6575, Disabilities@mc3.edu

West Campus

Student Success Center, South Hall
610-718-1853, westdisab@mc3.edu

Montgomery County Community College welcomes all qualified students with disabilities to participate in its educational programs, services and activities to the fullest extent possible. In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, the College will provide reasonable accommodations to ensure equal access to the College community.

Students with disabilities may be eligible for academic support, use of assistive technology, and supportive and advocacy counseling. Students may also be eligible for classroom accommodations for testing and note-taking. There are no additional fees for these services.

Students who need access to these services are responsible for identifying their needs and requesting support and accommodations. Students with hidden disabilities need to provide recent and relevant documentation from a qualified professional to support their requests. Students are encouraged to make their needs known as soon as possible.

For more information about services, eligibility and documentation requirements, contact the Director of Students with Disabilities at Central Campus. Students attending West Campus should contact the Coordinator of Disability Services. Complete policies and procedures for students with disabilities are available on the College's web site and from the Director and Coordinator of Disability Services.

VETERANS' EDUCATIONAL BENEFITS

Central Campus

Veterans Resource Center, 215-619-7307

West Campus

Student Success Center, South Hall, 610-718-1947

Veterans and certain dependents of veterans, Reservists and National Guard members may be entitled to educational benefits from the Department of Veterans Affairs. You should verify your program status before registering. If you have eligibility questions, call 888-442-4551. If you are using veterans benefits for the first time or are transferring to the College, contact the veterans' advisor for assistance in determining which documents you are required to complete for the application or transfer process. New student-veterans must provide a copy of their military discharge (DD-214, Member 4 copy) and a copy of the Department of Veterans Affairs (VA) Certificate of Eligibility for education benefits. VA regulations require that you maintain a 2.0 GPA in your declared major to receive educational benefits. The VA will not pay for audits, withdrawals or No Pass grades.

ENGLISH AS A SECOND LANGUAGE (ESL) ADVISING

Central Campus

ESL/International Student Advisor
Student Success Center, College Hall
215-641-6577

The College offers a variety of courses and special support services for students who need to learn the English language. We encourage ESL students to contact our ESL/International Student Advisor (at the above location) for assistance throughout their college career.

The ESL/International Student Advisor will assist students in understanding test results, selecting ESL and other college courses based on these results, and making a successful transition to the College. English and reading levels for ESL students include:

- Four semi-intensive beginner-level courses (ESL003, ESL004, ESL 005 and ESL 006), which introduce students to basic English vocabulary and pronunciation, and include practice in listening, speaking and writing.
- Intermediate levels, ESL Basic Writing I and II (ESL010 and ESL 011), which prepare students for college-level English Composition I.
- Vocabulary Development I and II (REA014 and REA017), which further increase students' English vocabulary and reading comprehension.
- Oral/Aural Skills (ESL009), which develop listening and conversation skills.

English as a Second Language Non-Credit Classes

A wide variety of high-quality non-credit ESL courses for adults and mature teens at all levels are available. You will study new vocabulary, improve your pronunciation, become familiar with American idioms and much more. If you wish to learn English or enhance your English writing and speaking skills, the ESL/International Student Advisor is available to meet with you at the Central Campus or you may speak with her by phone for assistance in selecting the right class for you. Classes are available weekday mornings, evenings and Saturdays. To make an appointment call 215-619-7396 or email ContinuingEducation@mc3.edu.

HEALTH & WELLNESS

Health & Personal Property Insurance

Students are strongly encouraged to obtain insurance coverage for personal illness, injury and/or loss of personal property by fire or theft while in attendance at the College.

The College does not assume liability for illnesses and/or injuries sustained while on College premises and/or during clinical rotations and other educational internships at off campus sites. The College does not provide payment for medications, laboratory tests and other medical services related to such illnesses and/or injuries. Students are urged to obtain their own personal health insurance coverage.

Students may be eligible for health insurance coverage under a parent's or guardian's health plan, depending on age, dependent status and other available resources for healthcare coverage.

To assist students, in need of health insurance and/or healthcare related services, the College's Office of Health & Wellness provides resource information on some low to moderate cost individual health plan options, as well as several local health centers/clinics offering a variety of healthcare services at a reduced cost. (Note: These plans and health centers/clinics are not associated with the College.)

Drug and Alcohol Prevention

The College's campuses are drug and alcohol free environments. In addition, the College implemented the Clean Air Policy in Fall 2007 to further reduce the use of tobacco products at all campus locations to support a healthy and safe environment for all who come to learn, work and take advantage of the many cultural events.

To support healthier lifestyle behaviors, the College has a strong alcohol and drug abuse awareness & prevention program and provides information on resources for tobacco cessation. Health related information on tobacco addiction and the health risks associated with the use of illicit drugs and the abuse of alcohol are made available by the Office of Health & Wellness to students. Additional information is available during many of the free events held on campus, including health fairs, health screenings, fitness days and health awareness programs. Counselors in the Student Success Center and members of the Student Support & Referral Team (SSRT) are available, on a confidential basis, to respond to students with issues related to drugs and alcohol as well as to connect students with College and community resources.

SSRT: Student Support Referral Team

Central Campus

Student Success Center, College Hall
215-641-6577
StudentReferral@mc3.edu

West Campus

Student Success Center, South Hall
610-718-1906
studentreferral@mc3.edu

The Student Support and Referral Team can connect you with helping professionals for issues related to:

- Stress
- Anxiety
- Anger
- Emotional Distress
- Depression
- Eating Disorders
- Abusive relationships
- Suicidal Thoughts

This is a free confidential referral service available to current students of the College. Students are encouraged to self-refer by visiting the Student Success Center during normal business hours, sending an email to SSRT at StudentReferral@mc3.edu, or calling the Student Success Center at either campus at the above numbers. Please note that this is not a hotline service. If you are having an emergency or crisis situation, dial 911 to get immediate assistance to your location.

DENTAL HYGIENE CLINIC

Central Campus

Science Center, Room 211, 215-641-6483

Fax 215-619-7171, <http://mc3.edu/component/content/article/234-areas-of-study/health-sciences/dental-hygiene/8194-clinic>

Since 1973, the Dental Hygiene Clinic on the Central Campus has been providing the public with comprehensive preventive dental hygiene services. Services at this sophisticated dental facility include oral prophylaxis (teeth cleaning), initial periodontal therapy, x-rays, sealants, fluoride treatments and other procedures. Licensed dentists and dental hygiene faculty supervise all treatments.

The Dental Hygiene Clinic operates September through May, by appointment. A nominal fee for service is charged to Montgomery County Community College students and employees.

CHILD CARE SERVICES

Central Campus

Debbie Ravacon

Director of The Children's Center

215-641-6618

dravacon@mc3.edu

The Children's Center at the Central Campus offers a high quality early care and education program for children of students, faculty, staff and area residents. The Center boasts NAEYC accreditation as well as a Star 4 rating from PA Keystone Stars. The Center serves children ages two through five years, with operating hours from 7:30 a.m. to 5 p.m. For information, visit www.mc3.edu and search: Children's Center.

West Campus

YWCA Tri-County Area

315 King Street

Pottstown, PA 19464

610-323-1888

childcare@wcatricountyarea.org

Ready Set Grow Child Care operates with the belief that children learn best when their individuality is nurtured and recognized and when they are treated with respect and caring. The YWCA serves children 3 months to 5 years with operating hours from 6:30 a.m. to 6:00 p.m. Monday through Friday.

ACADEMIC GRADING AND PROGRESSION POLICIES

Graded Designations

| Grades | Quality Points |
|--------|---------------------|
| A | 4.00 |
| A- | 3.67 |
| B+ | 3.33 |
| B | 3.00 |
| B- | 2.67 |
| C+ | 2.33 |
| C | 2.00 |
| D | 1.00 |
| F | 0.00 |
| XF | Academic misconduct |
| FN | F never attended |
| FS | F stopped attending |
| NP | No pass |
| P | Pass |

Non-Graded Designations

| Grades | Quality Points |
|--------|--|
| AU | Audit |
| AT | Attended |
| CE | Credit by exam |
| CL | Credit for prior learning experience |
| I | Incomplete |
| NC | No credit |
| NS | No show for attendance |
| W | Student initiated during withdrawal period |
| WEX | Withdrawal with approved excuse |

Midterm Academic Progress*

| | |
|---|----------------|
| S | Satisfactory |
| U | Unsatisfactory |

* does not appear on transcript

Grading System

The grading system at Montgomery County Community College is a plus/minus system with associated quality points. These quality points are used in the calculation of the cumulative grade point average (GPA) for college level courses. A student's cumulative grade point average is determined by dividing the number of credits attempted into the quality points earned. The use of a GPA Calculator can assist in calculating the cumulative grade point average. Each instructor provides written explanation of the College approved grading system in the course syllabus. Students are responsible for obtaining a clear understanding of the grading system.

Note on Letter Grades

The lowest passing grade is "D". Students may repeat courses. The best grade earned will be used to calculate their GPA; however, all courses attempted and grades received appear on the transcript.

Monitoring of Attendance and Student Progress

Instructors are required to complete attendance reporting after 20% of the course contact time has occurred - at the second week of the semester or at the conclusion of the second class meeting in an accelerated session. An Early Alert is automatically issued for any student not attending class(es), so that proactive intervention can be initiated by the student's academic advisor/counselor. Instructors report students who have attended class meetings using a code of "AT" (Attended), and students who have never attended using a code of "NS" (No Show). If the student began course attendance and subsequently stopped attending, the instructor would report the student as "AT" and enter a Last Date of Attendance (LDA). It is the responsibility of the student to notify the College when there is the intent to withdraw from classes. Failure to attend class meetings or to pay tuition and fees does not constitute a withdrawal ("W"). The instructor, after consultation with the Division Dean, determines course reentry for a student after extended absence or lack of beginning attendance in the course. The College does not disburse financial aid to students who have been identified as ineligible through this procedure.

Administrative Deregistration

Students are administratively deregistered for the purposes of dropping them from class rosters when they have been reported as a "NS" (No Show) in all of their registered classes. Administrative deregistration is treated the same as a regular drop status as it relates to the students' GPA and course attempts. Instructors will assign an "FS" grade to a student who began attendance but subsequently stopped attending and did not withdraw.

Midterm Academic Progression

At the midterm period of each semester/session, instructors are required to enter into the electronic grading system an indicator of student progress. An "S" is entered if the student is making satisfactory academic progress (A, B, or C grade); a "U" is entered if the student is attending classes and is not making satisfactory academic progress (a D or F grade). An Early Alert will be immediately entered for any student receiving a grade of "U", so that proactive intervention can be initiated by the student's academic advisor/counselor. At midterm, if the student has stopped attending, the instructor will assign a midterm grade of "U", enter a Last Date of Attendance (LDA) and a final grade of "FS".

Repeating a Course

Students can repeat a course to earn a higher grade. After two course attempts, requests for the third must be approved by a Dean, Director, or Advisor/Counselor*. A student who would like to request the possibility of a fourth course attempt must meet with the Provost or his/her designee for consideration. The College uses the best grade earned in the course to calculate the student's grade point average; however, the grade from each course attempt will appear on the student's transcript. It is important to note that all course withdrawals and audits count as attempts.

* Health career programs require the student obtain the signature of the Program Director.

Withdrawal from Courses

Students initiate the process of course withdrawal after consultation with the instructor and/or an academic advisor/counselor. After the Add/Drop period ends and prior to completion of 60% of the course time, a student wishing to withdraw must submit an official drop/add/withdrawal form. An official grade of "W" (Withdrawal) is assigned to the course. After completion of 60% of the course time and prior to 75% of the course time the student must request and receive permission from the course instructor to withdraw from the course. The instructor completes an online Withdrawal Permission Form and indicates a final course status grade of "W" (Withdrawal). The College's Registration Calendar outlines specific dates associated with the withdrawal process that must be followed.

For Excused Withdrawal ("WEX") due to medical, catastrophic or other circumstances beyond the student's control, students can request withdrawal from a course during the semester after 75% of the course time with supporting documentation. Review of documentation for an Excused Withdrawal will occur by the Division Dean, Program Director or Instructor and a recommendation will be provided to the Provost's Office.

Incomplete Grade

After 75% of the course time has been completed and prior to the last class meeting, students with satisfactory academic standing who are unable to complete their coursework due to valid, unforeseen circumstances can seek an incomplete grade of "I" with the permission of the instructor. If the request is approved, the instructor outlines an agreement of the work the student must complete on the Incomplete Form. An Early Alert is submitted by the instructor to the student's academic advisor/counselor so student progress can be monitored. The deadline for completing the course requirements is no more than three months* after the final day of the semester in which the Incomplete grade was issued. An "I" grade (Incomplete) is changed to an "F" grade when the agreement of work on the Incomplete Form is not satisfied or when more than three months from the final day of the semester have elapsed. This grade cannot be a withdrawal ("W"). The College's Registration Calendar outlines specific dates associated with the incomplete grade process. *If a course requirement requires longer than three months, for example, a performance-based assessment, then this deadline can be extended with the approval of the Dean or Program Director.

Withdrawal for Military Deployment or Reassignment

The College will provide the following options for students who have been deployed or reassigned for military service in order to appropriately maintain the student's academic and financial records with Montgomery County Community College.

- During the Drop/Add registration period, with copies of the deployment orders, the Registrar may backdate the student's registration so that no charges are assessed for the term and no courses appear on an official transcript.
- After the drop/add period (Withdrawal Period), with deployment orders the student may opt to have all courses and charges removed from the record for the semester. Without deployment orders the student must follow standard College withdrawal procedures. A retroactive appeal to have the courses and charges removed from the record can be initiated upon delivery of the required deployment orders.

- After the drop/add period (Withdrawal Period), the College can provide the student with an option to apply for an incomplete (I) grade with the course instructor. The incomplete grade (I) must be completed by the end of the semester following deployment. If the course is not completed and the student submitted a copy of the deployment orders prior to leaving, the course and the tuition will be removed from the student's record. If the student does not complete the requirements of the incomplete (I) grade and did not submit a copy of the deployment orders prior to leaving, the incomplete grade (I) will convert to a failing (F) grade. The student may appeal the grade and tuition upon return to the College with submission of the deployment orders.

DETERMINATION OF GRADE POINT AVERAGE (GPA)

The total grade points earned for each course attempted are determined by multiplying the credit hours by the grade point. The student's Grade Point Average (GPA) is then calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. The GPA may range from 0.0 to 4.0.

| Course | Credit Hours | Grade | Points | Total Grade | Points |
|--------------|--------------|-------|--------|-------------|--------------|
| ENG 101 | 3 | B | 3.00 | 3 x 3.00 = | 9.00 |
| PSY 101 | 3 | F | 0.00 | 3 x 0.00 = | 0.00 |
| MAT 100 | 3 | C | 2.00 | 3 x 2.00 = | 6.00 |
| BIO 121 | 4 | D | 1.00 | 4 x 1.00 = | 4.00 |
| FRE 101 | 3 | A | 4.00 | 3 x 4.00 = | 12.00 |
| TOTAL | 16 | | | | 31.00 |

$31 \text{ (total grade points)} \div 16 \text{ (total credits attempted)} = 1.93 + \text{GPA}$

Credits attempted include credits within the student's load for which grades of A, A-, B+, B, B-, C+, C, D, F are given. Credit for courses awarded CR, I, P, NP, CL, NG, W, TR, CE or AU, AW are not included in the GPA calculation. Courses with a course number below 100 are also not included in the GPA.

GRADE REPORTS

Students must obtain their grade reports on WebAdvisor, the College's automated recordkeeping and reporting system that provides protected access to academic and financial records.

GRADE APPEAL

In the interest of due process, the College provides an appeal process for a student who believes that a recorded final grade does not accurately reflect the performance in a course. The student must first attempt to resolve the grade with the course instructor. If unable to resolve the matter with the instructor, the student must complete the Student Information and Step One Section of the Grade Appeal form and request Division Dean's intervention. If unable to resolve the matter at the Division level, the Dean will complete Section Two of the Grade Appeal form and the Associate Vice President of Academic Affairs will convene a Committee to hear the grade appeal. See Policies and procedures on the college website for details.

For the Grade Appeal Policy including the process and corresponding deadlines, refer to <http://mc3.edu/about-us/policies/113>.

PROGRAM EVALUATIONS

Central Campus
Student Success Center
College Hall
215-641-6577
advising@mc3.edu

West Campus
Student Success Center
South Hall
610-718-1906
advising@mc3.edu

The Program Evaluation is a personalized computer analysis of a student's progress toward graduation in a major. It includes courses taken at Montgomery County Community College, course equivalents for transferred courses from other colleges, general information about the program requirements, and a list of courses that do not apply to the selected program. We encourage students to review their Program Evaluations to monitor their academic progress, and to identify the coursework they have yet to complete in their current major.

In the event that a student chooses to request a course substitution in order to meet program requirements, a Request to Substitute a Course form is submitted together with supporting documentation. The request is forwarded electronically to the appropriate dean for the identified program, after review by the student's assigned academic advisor. Students are notified via College email of either approval or denial of the request. The electronic Course Substitution form is found on the student portal under the Academic Affairs or Registration tab.

Students are encouraged to view and print their Program Evaluation at www.mc3.edu, accessing WebAdvisor and selecting Program Evaluation. Students may also see how their coursework applies to a different major by using the "What If" feature of Program Evaluation on WebAdvisor or by requesting a new audit from the offices listed above. Questions about the Program Evaluation may be answered in either Student Success Center.

CHANGING A MAJOR

Central Campus
Student Success Center
College Hall
advising@mc3.edu

West Campus
Student Success Center
South Hall
advising@mc3.edu

Students who wish to change their programs of study or request a different academic advisor must complete a Change of Major form available found online in the Student Portal.

DISTINCTIONS FOR HIGH GRADES

The College awards distinctions to students in recognition of high academic achievement.

Dean's List

The College recognizes the academic achievement of full-time students who have earned 12 or more cumulative credits. To receive Dean's List status, full-time students must have earned a GPA of 3.5 or above in the most recently completed semester, completed 12 or more credits and have not earned any F, NP or I grades or have been placed on Academic Warning for that semester. Developmental level courses are excluded in this computation.

Dean's Commendation List

The College recognizes the academic achievement of part-time students who have earned 12 or more cumulative credits. To receive Dean's Commendation List status, part-time students must have earned a GPA of 3.5 or above in the most recently completed

semester, completed 3 to 11 credits and have not earned any F, NP or I grades or have been placed on Academic Warning for that semester. Developmental level courses are excluded in this computation.

Graduation Honors

To graduate from the College with an Honors distinction, an Associate Degree student must earn a cumulative GPA of:

- 3.25 to 3.49 for *cum laude*
- 3.50 to 3.74 for *magna cum laude*
- 3.75 to 4.00 for *summa cum laude*

Students who were issued an XF grade at any point during their academic career at the College are ineligible for accolades.

ACADEMIC PROGRESSION

In an effort to increase the ability of students to reach their educational goals, the College has established academic milestones to monitor the continuum of progression toward graduation.

To graduate from the College, a student must fulfill all degree or certificate requirements and earn a cumulative Grade Point Average (GPA) of 2.0 or better. Acceptable progression toward graduation includes maintaining a cumulative GPA as outlined in the Academic Progress Table.

Academic Warning

A student who earned a semester GPA less than 2.0 or who received an F, XF or NP grade in college-level courses or a D, F, XF or NP grade in developmental courses will be issued an Academic Warning unless he/she falls into another category as outlined in the Academic Progress Table.

Academic Probation

A student who has attempted 12 credits or more will be placed on Academic Probation if the cumulative GPA falls within the range as outlined in the Academic Progress Table.

Academic Suspension

The College will issue Academic Suspension to a student who has attempted 24 cumulative credits or more and meets the following: has semester GPA less than 2.0; has been on Academic Probation during the previous semester and at least two times since entering the College; and has a cumulative GPA within the range as outlined in the Academic Progress Table. An academic suspension student will be dropped from all upcoming registered coursework. The College may readmit an academic suspension student after a minimum of a one-semester enrollment stop-out, if the student first meets with a counselor to create an academic plan for success

STUDENT ACADEMIC CODE OF ETHICS

In the pursuit of knowledge and scholarship, all members of the academic community at Montgomery County Community College must maintain a constant commitment to academic integrity. The College provides an environment that fosters critical thinking and judgment; and, in order to safeguard the integrity of the institution, we expect students to follow the policies of the College and the faculty. To fulfill their part of that commitment, students must adhere to an academic code of ethics by refraining from participation in acts of academic dishonesty, including plagiarism, cheating on examinations and assignments and aiding another student in committing an act of academic dishonesty.

By attending the College, students accept this Student Academic Code of Ethics. To review the entire Academic Code of Ethics and the consequences for non-adherence visit <http://mc3.edu/about-us/policies/110>.

ACADEMIC DISCIPLINE

Students are expected to be well-motivated and constructive in their pursuit of learning. Attendance at the College is a privilege, not a right; students, by the act of registration, concede to the College the right to require the withdrawal of any student at any time when it is necessary to safeguard the College's ideals of scholarship and character and to secure compliance with its regulations.

Each individual faculty member has the right to remove a student from class for reasons of academic discipline. When academic discipline problems cannot be satisfactorily resolved with the student, faculty member, and division dean, the matter will be adjudicated by the Vice President of Academic Affairs. A written statement will be filed with the Vice President by the faculty member or student involved in the situation. The Vice President shall then meet with the faculty member and student(s) involved and shall decide what action, if any, will be taken.

If, after this meeting, any of the parties are not satisfied with the resulting decision, formal procedures follow guidelines developed by the Committee on Academic Progress.

Instances of non-academic student misconduct are the responsibility of the Dean of Student Affairs at Central Campus or the Assistant Vice President of Student Affairs at West Campus.

ACADEMIC PROGRESS TABLE

| Cumulative Credits Attempted | GPA for Academic Suspension | GPA for Academic Probation | Minimum Acceptable Progress (Cumulative GPA) |
|------------------------------|-----------------------------|----------------------------|--|
| 12-23 | — | 0.00 - 1.50 | 1.51 |
| 24-35 | 0.00 - 1.39 | 1.40 - 1.74 | 1.75 |
| 36-47 | 0.00 - 1.49 | 1.50 - 1.82 | 1.83 |
| 48-59 | 0.00 - 1.59 | 1.60 - 1.99 | 2.00 |
| 60+ | 0.00 - 1.69 | 1.70 - 1.99 | 2.00 |

STANDARDS FOR STUDENT CONDUCT

Montgomery County Community College is committed to providing a campus environment in which all students have an equal opportunity to learn, study and grow as scholars and as citizens of the larger community. Students are expected to treat all members of the college community with dignity, respect, fairness and civility, and to behave in a responsible manner at all times both in and outside of the classroom.

While fully recognizing every individual student's personal rights, including the right to free speech, the College has established a Student Code of Conduct to describe behavior that is in violation of acceptable college standards and the disciplinary sanctions and disciplinary procedures for code violations. The Code applies to behavior on College-owned property, in College classes conducted on campus or at a distance, and at all College-sponsored activities whether on or off campus. Academically-related classroom violations are addressed under the College's Academic Discipline Policy and Academic Code of Ethics.

Behavior that is considered in violation of the College's Code of Conduct may result in disciplinary action. Any violation of the Code of Conduct should be reported to the Dean of Student Affairs, or the Assistant Vice President of Student Affairs at the West Campus. The Vice President for Student Affairs is responsible for administering the College's Code of Conduct.

The Code of Conduct is available in the Student Handbook, on the website at <http://mc3.edu/about-us/policies/125>, from the Dean of Student Affairs Office at Central Campus and from the Assistant Vice President of Student Affairs Office at West Campus.

STUDENT RECORDS AND TRANSCRIPTS

PRIVACY OF STUDENT RECORDS – FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

Montgomery County Community College (the College) accords all the rights under the Family Educational Rights and Privacy Act of 1974 (the Act) to its students. The College collects, maintains, secures and destroys student records for the educational welfare and advancement of the students. No one outside the College shall have access to, nor will the College disclose any information from students' education records without the written consent of the students, except to personnel within the College, to officials of other institutions in which students seek to enroll, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation functions, to persons in compliance with a judicial order, to persons in an emergency in order to protect the health or safety of students or other persons, and to individuals and agencies permitted under the Act. The Act affords current and former attending and registered students of the College the right to access their education records.

Notification of Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) afford students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the College receiving a request for access.

Students should submit to the Director of Student Records and Registration/Registrar, written requests that identify the record(s) they wish to inspect. The Director of Student Records and Registration/Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Director of Student Records and Registration/Registrar, that official shall advise the student of the correct official/department the student should expect to hear from within 15 business days.

2. The right to request the amendment of the student's education record that the student believes is inaccurate. Students may ask the College to amend a record that they believe is inaccurate. They should direct a written request to the Director of Student Records and Registration/Registrar clearly identifying the part of the record they want changed, and specify why it is inaccurate.
3. If the College decides not to amend the record, as requested by the student, the College will notify the student of the decision within 15 days and will advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
4. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent as indicated below:
 - a. To school officials who have a legitimate educational interest in the record.
 - b. To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer.
 - c. To authorized representatives of the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a State postsecondary authority that is responsible for supervising the College's State-supported education programs. Disclosures under this provision may be made in connection with an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of Personally Identifiable Information to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf.
 - d. In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid.
 - e. To organizations conducting certain studies for or on behalf of the College, or order to (a) develop, validate or administer predictive tests; (b) administer student aid programs; or (c) improve instruction.
 - f. To accrediting organizations to carry out their functions.
 - g. To parents of an eligible student, if the student is a dependent for IRS tax purposes.
 - h. To comply with a judicial order or a lawfully issued subpoena.
 - i. To appropriate officials in connection with a health or safety emergency.
 - j. As it relates to directory information, unless the student restricts directory information.
 - k. To a victim of an alleged perpetrator of a crime of violence or

a non-forcible sex offense, the disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding.

- i. To the general public, the final results of a disciplinary proceeding, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the College's rules or policies with respect to the allegation made against him or her.
 - m. To the parents of a student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21.
 - n. To the student.
5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

Notice for Directory Information

Within Montgomery County Community College, school officials who have been determined by the College to have legitimate educational interests may receive personally identifiable information from the students' education records without the students' consent. These school officials may include personnel employed by the college in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide service instead of using college employees or officials; or a student serving on an official committee such as a disciplinary or grievance committee. In addition, authorized representatives may receive personally identifiable information with respect to Federal- or State-supported educational programs, in conducting any audit or evaluation, or any compliance or enforcement activity in connection with Federal legal requirements that relate to these programs. The College may provide directory information in accordance with the provisions of the Act to include:

- Student's full name
- Addresses
- Electronic mail address
- Photograph
- Telephone listing
- Date of birth
- Major field of study
- Dates of attendance/enrollment
- Participation in officially recognized activities and sports
- Weight and height (members of athletic teams)
- Degrees, honors and awards received
- Most recent educational agency or institution attended
- Enrollment status (full-time or part-time)

Students may withhold directory information by notifying the Director of Records and Registration/Registrar in writing within three weeks after the first day of classes for the semester in which the withholding of directory information is to take effect. Students' requests for non-disclosure will be honored until the student requests its removal.

TRANSCRIPTS

A transcript is a record of courses a student attempted and/or completed at the College. Students or alumni who need a transcript should request a transcript online. They must complete an official Transcript Request Form, with a \$5-per-copy transcript fee. Forms are available at <http://www.mc3.edu/adm-fin-aid/request-transcripts>.

WHERE TO GO FOR MORE INFORMATION

In compliance with federal regulations, here is a list of key contacts for specific disclosure information.

Rights under Family Education Rights and Privacy Act (FERPA)

Director of Records and Registration/Registrar
Central Campus, 215-641-6562
West Campus, 610-718-1948

FFEL/Direct Loan Deferments for Peace Corps or Volunteer Services

Financial Aid, 215-641-6566

Completion, Graduation and Transfer Out Rates

Institutional Research, 215-641-6674

Campus Security Statistics

Public Safety, 215-641-6605

DEGREE REQUIREMENTS AND GRADUATION

DEGREE AND CERTIFICATE REQUIREMENTS

All of the core classes and number of credits required in each discipline for the degrees and certificates offered by the College are listed in the "Core Curriculum and Degrees" section of this Catalog and the sections for each academic division. Students should also work closely with advisors and counselors to ensure that they take the appropriate courses.

It is the student's responsibility to meet all requirements in the selected program of study, including any developmental level course requirements. Students may track their academic progress through Student Educational Planning on their myMC3 Student Portal.

To graduate, degree students must complete a minimum of 60 semester credits. Students who have earned credit through transfer and assessment of other prior learning experiences must complete at least 25 percent of the required credits in order to earn a degree or certificate from Montgomery County Community College.

Diplomas, certificates and transcripts will not be released until all financial obligations of a student to the College have been met, including tuition and fees, parking tickets and Library/AV fines or fees.

APPLICATION FOR GRADUATION

Central Campus

Enrollment Services
College Hall 240
215-641-6551

West Campus

Enrollment Services
South Hall 151
610-718-1944

During their last semester at the College, students can indicate their intent to graduate by submitting an Application for Graduation on their myMC3 Student Portal. Students should refer to www.mc3.edu for deadlines.

The application does not need to be signed by academic departments however, students may wish to review their most recent degree audit with their advisor or the Student Success Center to ensure that they have met their degree requirements.

SELECTING YOUR PROGRAM OF STUDY

DEGREE AND CERTIFICATE PROGRAMS

The College meets the diverse educational and occupational needs of our students with a variety of degree and certificate options. To graduate, students must earn a cumulative GPA of at least 2.0 and fulfill all degree requirements of the program in which they are enrolled.

Associate in Arts

Associate in Arts (AA) degrees are designed to provide the first two years of education for students who intend to transfer to a four-year institution. These programs are designed to give students broad, general background in subjects ranging from English and history to science and mathematics. Through electives, students may pursue individual interests while they are being exposed to their core curriculum.

Associate in Fine Art

The Associate in Fine Art (AFA) curriculum provides the foundation studies and studio expertise that parallels the first two years of study at a four-year college. The program also provides students whose intention it is to seek employment after earning an Associate's Degree with the opportunity to develop their skills and produce a portfolio in the visual arts.

Associate in Science

Associate in Science (AS) degrees are designed primarily for students who intend to transfer to a four-year institution. Most of the programs also prepare the student for immediate entrance into a career. Our AS programs provide a solid foundation in traditional liberal arts courses and specialty courses.

Associate in General Studies

Because some students want to complete two years of work at the College without committing to a curriculum or wish to pursue a self-designed programs of study, the College offers an Associate in General Studies (AGS) degree.

Associate in Applied Science

Associate in Applied Science (AAS) degrees are designed to enable students to prepare for employment immediately upon graduation.

Certificate Programs

The College's certificate programs are designed to provide education leading to entry-level employment. The certificate programs are generally discipline-intensive, containing few core curriculum courses; however, most certificate courses can be applied to a corresponding associate degree program.

Specialty Certificates

The College awards professional certificates to students who have completed at least 30 college credits and return to school to pursue special, intensive study in a specialized program consisting of at least 18 credit hours.

Certificates of Completion

The College has designed short-term job-ready certificate programs that can be completed in as little as one semester.

Additional Degrees

Students who want to receive a second associate degree from the College must complete at least 21 additional college-level credits and fulfill all of the course requirements as outlined in this catalog.

Certificate Programs, Non-Credit

The College's non-credit certificate programs are designed to provide training in less than one year for entry level high demand occupations. Most of the certificate programs include preparation to take exams for industry certifications. Several of the programs include an internship or practicum. With successful completion of some programs, completed coursework can be articulated to count towards credit requirements for a credit certificate or degree program.

MEETING THE REQUIREMENTS

Our requirements are recommended in the sense that we have structured them to provide students with specific courses of study to meet educational requirements elsewhere. Students planning to transfer to the junior class of a four-year institution are offered courses at Montgomery County Community College that parallel those offered in the freshman and sophomore years of most four-year colleges and universities. The College realizes, however, that our requirements will occasionally not accommodate the objectives of all students, even though our programs frequently allow electives; therefore, students may choose to substitute other courses if their selections are approved by the appropriate Division Dean or Program Director.

Similarly, students planning to transfer to four-year institutions are responsible for knowing the precise freshman and sophomore requirements of those institutions, so that they can plan their curriculum at the College accordingly.

SELECTING YOUR COURSES: COURSE NUMBERING AND CREDITS

Much of the rest of this Catalog is devoted to the core curriculum requirements for the College's degrees, details on the programs and course requirements within each of the College's academic divisions, and descriptions of each individual course.

To help you choose your courses, here is a guide to what their numbers and prefixes mean, as well as how the College calculates course credits:

Deciphering a Course Number and Prefix

Courses are designated with a three-letter course prefix and three numbers. The three-letter course prefix is an abbreviation for the discipline - for example, NUR for Nursing. The three digits of the course number indicate the following:

- The first digit generally refers to class level/year, with 0 indicating below college level, 1 indicating freshman level and 2 indicating sophomore level.
- The second digit generally refers to the level within a discipline, where possible. The higher the number, the more advanced the course.
- The third digit refers, where appropriate, to sequences within specializations of the discipline. For example, 0 indicates a one-semester introductory or survey course in the discipline, and 1 and 2 indicate a basic two-course sequence. Numbers above 2 designate other advanced courses and/or sequences.

For example: EDU 100
 EDU = Education course
 1 = Freshman level
 0 = Lowest-level course in discipline
 0 = Introductory or survey course

Numbers Representing Content Levels

- Courses numbered 1 to 19 are developmental; they have content similar to high school or below high school level. They include basic skill courses such as arithmetic, algebra, elementary reading and writing. They may not be applied toward the graduation credit requirements for a degree or certificate. However, students placing into these courses as a result of placement testing must complete each course with a grade of C or better in order to graduate with a degree or earn a certificate.
- Courses numbered 20 to 99 are specialized courses that have high school-level content but are not basic skill-level courses. They may not be applied toward graduation credit requirements for certificates or degrees.
- Courses numbered 100 to 199 have content that is at the college freshman level. Most of these courses require a high school-level background or equivalent in order for the student to receive maximum benefit and have a reasonable chance of succeeding in the course. These courses may apply toward graduation credit requirements of degrees and certificates.
- Courses numbered 200 to 299 have content that is at the college sophomore level. Most of these courses require that a student have a freshman-level background or equivalent in the discipline and/or related skill areas in order to receive maximum benefit and have a reasonable chance of succeeding in the course. These courses may apply toward graduation credit requirements for degrees and certificates.

INTERNSHIPS AND INDEPENDENT STUDY

Each discipline may utilize internships and independent study. The faculty of each discipline, along with the Division Dean, determine the appropriateness of these classes for their students' curriculum needs.

198, 298 Cooperative Internships

These courses, available in a number of disciplines, provide students with an opportunity to integrate what they have learned in the classroom with valuable hands-on work experience in their field of study. Students work full-or part-time for a specified period of time (usually a minimum of 225 hours for three credits).

198 Cooperative Internship I
 298 Cooperative Internship II

199, 299 Independent Study

In independent study courses, a faculty member gives students assignments with problems for independent study that incorporate previous instruction. Credit hours are variable.

HOW THE COLLEGE DETERMINES COURSE CREDITS

One College semester credit hour is a unit of coursework equivalent to 55 minutes of instruction per week, for 14 weeks of lecture or equivalent-type classes. It also assumes that students, on average, have a minimum of two hours of out-of-class study each week.

Not all courses are taught in a lecture format. Three commonly accepted semester-hour equivalents for laboratory and clinic instruction are:

- One semester hour credit equals two hours of structured laboratory study weekly, which includes frequent tutorial or lecture-type interaction of a faculty member with students, and a minimum (on average) of one hour of out-of-lab study weekly. An example is computer science courses that have two lecture hours weekly, two lab hours weekly and three credits.
- One semester hour credit equals three hours of structured laboratory study that includes less frequent interaction between the faculty member and students than the first example, with few out-of-lab assignments. Examples include biology, chemistry and physics courses that have three lecture hours weekly, three lab hours weekly and four credits.
- One semester hour equals usually not more than five hours of clinical time weekly, which includes some interaction between a faculty member and the student. Outside assignments may augment the clinic. Dental hygiene, medical laboratory technician, nursing, radiography and surgical technology courses fall into this category.

The three numbers following a course title indicate, in order, the credit hours for the course, the number of hours per week the class meets for lectures, and the number of hours per week spent in the laboratory.

For example: BIO 121 General Biology 1, 4-3-3
 4 = four hours credit
 3 = three hours weekly of lecture
 3 = three hours weekly of lab



MAJORS, DEGREES AND CERTIFICATES

Major codes are used during admission and when you declare a major. Note: Career programs are for students who plan to immediately enter the workforce. Transfer programs are for students who plan to transfer on to another educational institution. Location codes indicate where the programs and degrees are offered: Central Campus (CC), West Campus (WTC), Online (ONLN) and Off-Campus Locations (OFFC).

TWO-YEAR ASSOCIATE DEGREES

Career Programs

| | MAJOR CODE | DEGREE CODE | LOCATION CODE |
|-----------------------------------|------------|-------------|----------------|
| Accounting | AL | AAS | CC, WTC, ONLN |
| Biotechnology | BI | AAS | CC |
| Biotechnology, Nanotechnology | BI.N | AAS | CC |
| Culinary Arts - | | | |
| Culinary Arts | CUL.A | AAS | OFFC |
| Baking and Pastry Arts | CUL.B | AAS | OFFC |
| Computer Networking | CN.NADM | AAS | CC |
| Computer Networking | CN.CYBS | AAS | CC |
| Criminal Justice | PS | AAS | CC, WTC, ONLN |
| CJS Concentration in | | | |
| Homeland Security | PS.HS | AAS | CC, ONLN, OFFC |
| Dental Hygiene General Studies | DH.GS | AAS | CC |
| Digital Broadcasting | DB | AAS | CC |
| Electronic Game Simulation Design | EGSD | AAS | CC |
| Emergency Management & Planning - | EP | AAS | CC, OFFC, ONLN |
| Homeland Security | EP.HS | AAS | CC, OFFC, ONLN |
| Engineering Technology | ET | AAS | CC |
| Engineering Technology - | | | |
| Electrical | EO | AAS | CC |
| Mechanical | EO | AAS | CC |
| Nanofabrication | EO | AAS | CC |
| Fire Science | FS | AAS | CC, OFFC |
| Health & Fitness Professional | PE.FIT | AAS | CC |
| Health Services Management - | HS | AAS | CC, WTC, ONLN |
| Medical Coding | HS.MC | AAS | CC, WTC, ONLN |
| Medical Office Assistant | HS.MOA | AAS | CC, WTC, ONLN |
| Human Services | MH | AAS | CC, WTC, ONLN |
| Human Services - | | | |
| Addictions | MH.D&A | AAS | CC, WTC |
| Child, Youth, and | | | |
| Family Services | MH.Y | AAS | CC, WTC, ONLN |
| Gerontology | MH.GER | AAS | CC, WTC, ONLN |

TWO-YEAR ASSOCIATE DEGREES (continued)

| | MAJOR CODE | DEGREE CODE | LOCATION CODE |
|-------------------------------------|------------|-------------|---------------|
| Management - | MGT | AAS | CC, WTC, ONLN |
| Entrepreneurial | | | |
| Management | MGT.ETP | AAS | CC, WTC, ONLN |
| Hospitality Management | MGT.HOS | AAS | CC |
| Marketing | MGT.MKT | AAS | CC, WTC, ONLN |
| Office Management | MGT.OFM | AAS | CC, ONLN |
| Real Estate | MGT.RES | AAS | CC, ONLN |
| Medical Laboratory Technician | | | |
| Gen. Studies | ML.GS | AAS | CC |
| Nursing General Studies | NR.GS | AAS | CC |
| Radiography General Studies | RT.GS | AAS | WTC |
| Surgical Technology General Studies | SR.GS | AAS | WTC |
| Web Design & Development - | | | |
| Design | DP.DES | AAS | CC, ONLN |
| Web Design & Development - | | | |
| Development | DP.DEV | AAS | CC, ONLN |

TWO-YEAR ASSOCIATE DEGREES

Transfer Programs

| | MAJOR CODE | DEGREE CODE | LOCATION CODE |
|----------------------------------|------------|-------------|---------------|
| Business Administration | BA | AS | CC, WTC, ONLN |
| Communication | ST | AA | CC, WTC |
| Computer Science | SC | AS | CC, WTC, ONLN |
| Dance | DAN | AA | CC, WTC |
| Education in the Early Years - | | | |
| Birth through 4th Grade | EEY | AA | CC, WTC, ONLN |
| Education in the Middle Years - | | | |
| Fourth through Eighth Grade | EMY | AA | CC, WTC, ONLN |
| Engineering Science | EG | AS | CC |
| Environmental Studies | EV | AS | CC, WTC |
| Exercise Science and Wellness - | ESW | AS | CC, WTC |
| Athletic Training | ESW.AT | AS | CC |
| Teaching Health and | | | |
| Physical Education | ESW.HP | AS | CC |
| Recreation and Sport Studies | ESW.RS | AS | CC |
| Fine Art | FA.A | AFA | CC, WTC |
| Information Technology | IT | AS | CC |
| Liberal Studies | LI | AA | CC, WTC, ONLN |
| Life Sciences | LSC | AS | CC |
| Mathematics | LM | AA | CC, WTC |
| Music | MU | AA | CC, WTC |
| Physical Sciences | LP | AS | CC, WTC |
| Psychology | PSY | AS | CC, WTC, ONLN |
| Secondary Education | ES | AA | CC, WTC, ONLN |
| Social Sciences - | LS | AA | CC, WTC, ONLN |
| General Studies | | | |
| (and/or undecided) | S | AGS | CC, WTC, ONLN |
| Geography Concentration | LS.G | AA | CC, WTC, ONLN |
| History Concentration | LS.H | AA | CC, WTC, ONLN |
| Sound Recording Music Technology | SRT | AAS | CC |
| Theater Arts | THA | AA | CC, WTC |

CERTIFICATE PROGRAMS
One-Year/Less (Career)

| | MAJOR CODE | DEGREE CODE | LOCATION CODE |
|--|------------|-------------|----------------|
| Certificate in Accounting | C.ACC | CRT | CC, WTC, ONLN |
| Certificate in Cloud Computing | C.CLC | CRT | CC |
| Certificate in Computer Networking | C.PC | CRT | CC, ONLN |
| Certificate in Cyber Security | C.CYBS | CRT | CC |
| Certificate in Culinary Arts | C.CULA | CRT | OFFC |
| Certificate in Baking & Pastry Arts | C.CULB | CRT | OFFC |
| Certificate in Addictions | CD | CRT | CC, WTC |
| Certificate in Emergency Management Planning | C.EP | CRT | CC, OFFC, ONLN |
| Certificate in Entrepreneurial Management | C.ETPM | CRT | CC, WTC, ONLN |
| Certificate in Fire Science | CF | CRT | CC, OFFC |
| Certificate in Gerontology | CG CC | CRT | WTC, ONLN |
| Certificate in Hospitality Management | C.HOS | CRT | CC |
| Certificate in Human Services | C.MH | CRT | CC, WTC, ONLN |
| Certificate in Management | C.MGT | CRT | CC, ONLN |
| Certificate in Marketing | C.MKT | CRT | CC, WTC |
| Certificate in Medical Assisting General Studies | C.MA.GS | CRT | CC, WTC |
| Certificate in Office Management | C.OFM | CRT | CC, ONLN |
| Certificate in Real Estate | C.RES | CRT | CC, ONLN |
| Certificate in Software Engineering | C.SOFT | CRT | CC |
| Certificate in Web Design & Development: Design Concentration | C.DES | CRT | CC, WTC, ONLN |
| Certificate in Web Design & Development: Developmental Concentration | C.DEV | CRT | CC, WTC, ONLN |
| Specialty Certificate in Accounting | PA | SPC | CC, WTC, ONLN |
| Specialty Certificate in Computer Information Systems | PI | SPC | CC, ONLN |
| Specialty Certificate in Computer Networking | PN | SPC | CC, ONLN |
| Specialty Certificate in Game Design | PG | SPC | CC |
| Specialty Certificate in Hospitality | PH | SPC | CC |
| Specialty Certificate in Marketing/Management | PM | SPC | CC, WTC, ONLN |
| Specialty Certificate in Office Administration | PO | SPC | CC, ONLN |
| Specialty Certificate in Public Relations | PPR | SPC | CC |
| Specialty Certificate in Real Estate | PR | SPC | CC, ONLN |
| Specialty Certificate in Software Engineering | PF | SPC | CC, ONLN |
| Specialty Certificate in Web Development | PW | SPC | CC, ONLN |

CERTIFICATE OF COMPLETION
Short-Term (Job-Ready)

| | MAJOR CODE | DEGREE CODE | LOCATION CODE |
|------------------------------------|------------|-------------|---------------|
| Accounting with QuickBooks | CS.AQB | CC | CC, WTC, ONLN |
| Biotechnology and Biomanufacturing | CS.BIC | CC | CC |
| Certified Bookkeeper | CS.CBK | CC | CC, ONLN |
| Entrepreneurship | C.ETP | CC | CC, WTC, ONLN |
| Homeland Security | CS.HS | CC | |
| GIS Systems Operation | CS.GIS | CC | |
| Medical Coding | CS.MC | CC | CC |
| Medical Office Assistant | CS.MOA | CC | CC, WTC |
| Payroll Specialist | CS.PRS | CC | CC, ONLN |
| Phlebotomy | CS.PBT | CC | CC |
| Security Management | CS.SM | CC | |
| Virtual Assistance | CS.VO | CC | CC, ONLN |

NON-CREDIT WORKFORCE DEVELOPMENT CERTIFICATE PROGRAMS
Career Programs

| | LOCATION CODE |
|--|---------------|
| A+ | CC |
| Child Development Associate (CDA) | CC |
| Cisco Certified Network Associate (CCNA) | CC |
| CCNA Security | CC |
| CCNA Voice | CC |
| CITRIX | CC |
| Emergency Medical Technician | OFFC |
| Entrepreneurial Certificate | CC |
| Medical Billing and Coding Certificate | CC, WTC |
| Microsoft Certified Solutions Associate (MCSA) | CC |
| Microsoft Certified Solutions Expert (MCSE) | CC |
| Microsoft Office Specialist (MOS) | CC |
| Municipal Police Basic Training Curriculum (ACT 120) | OFFC |
| Notary Public Training and Renewal | CC, WTC |
| Nurse Reactivation and Nurse Refresher | CC, OFFC |
| Paramedic | OFFC |
| Pharmacy Technician | CC, WTC |
| QuickBooks | CC, WTC |
| ServSafe Training and Certification | CC, WTC |
| Starting A Successful Woman-Owned Business Certificate Program | CC |

THE CORE CURRICULUM

The general education core contains the essence of what the faculty of Montgomery County Community College believe necessary for every graduate. It shapes how all students experience education at Montgomery County Community College and provides a common, shared exploration of knowledge, skills, and values that are the hallmark of an educated person.

The core is framed by thirteen learning goals encompassing the skills, knowledge, and values that Montgomery County Community College students will acquire through instruction and practice by the time of graduation. Approved in 2011, the College's competency-based core curriculum is incorporated into all academic programs.

The core is designed to help students communicate, solve problems, integrate knowledge, and place value on self and others. It provides the foundation essential to learning in all disciplines and gives students the tools necessary to sculpt a productive, informed future and a satisfying quality of life. The core education creates a community of learners and provides a set of academic experiences that are the basis for future intellectual pursuit.

WHAT DOES THE REVISED CORE MEAN FOR STUDENTS?

Enrolled before fall 2011: Students who enrolled in a program of study prior to September 2011, and did not change this course of study after the start of the fall 2011 term, will be able to meet the core requirements in place at the time they enrolled or may choose to meet the new core requirements in order to graduate.

Enrolled fall 2011 or later: All students enrolling or changing their course of study during or after the fall 2011 term will need to meet the College's new current core requirements regardless of the program in which they are enrolled.

The program of study for every program was designed by discipline faculty to incorporate the core requirements. By following their desired program of study, students will meet the core requirements. Program requirements as well as a list of specific courses that meet the new core requirements can be found on the Montgomery County Community College web site, at mc3.edu/academics/core-curriculum, or students may speak to an advisor in the Student Success Center or meet with a faculty member.

GENERAL EDUCATION CORE GOALS

SKILLS:

Academic skills prepare students for lifelong learning in a variety of instructional modes.

GOAL 1: Communication Skills

Use writing, speaking, reading, listening, and observational skills to understand, organize, receive and convey information.

GOAL 2: Analytic Skills

Employ logic, reasoning and analysis to solve problems.

GOAL 3: Quantitative Skills

Use mathematical concepts and standards and criteria to solve problems and make decisions.

GOAL 4: Computer Fluency

Use computers to collect, save, process, retrieve and transmit information and acquire those skills that are essential for working and living in a technological society.

GOAL 5: Information Literacy

Locate, evaluate, and use information from diverse sources.

KNOWLEDGE:

Knowledge empowers individuals to initiate change, achieve their potential, generate ideas, and serve the common good.

GOAL 6: Intellectual Heritage

Develop an understanding of the history of civilization, the evolution of cultures, and the ideas of great thinkers.

GOAL 7: Aesthetic Sensibility and the Arts

Develop an understanding of and gain an appreciation for artistic expression in various forms including fine art, music, literature, dance, theater, and the cinematic and electronic arts.

GOAL 8: Physical and Life Sciences

Develop an understanding of the natural and physical world and the role of science in society.

GOAL 9: Behavioral and Social Sciences

Develop an understanding of human behavior and social, political and economic constructs.

GOAL 10: Exercise and Health Science

Develop an understanding of physical fitness and health concepts.

VALUES:

Values, ethics and diverse perspectives encourage intellectual open-mindedness, and enable individuals to engage in society in responsible ways.

GOAL 11: Civic Responsibility

Demonstrate self-discipline, perseverance, and cooperation in the pursuit of personal success and positive civic engagement.

GOAL 12: Sensitivity to Global Perspectives and Cultural and Social Diversity

Develop an awareness of and receptivity to diverse perspectives, languages and values.

GOAL 13: Ethical Reasoning and Behavior

Base decisions on ethical principles.

COURSES MEETING GENERAL EDUCATION CORE GOALS

GOAL 1a: Written Communication

ENG 101, ENG 102, ENG 115, ENG 117, COM 230, SPC 125, SPC 225

GOAL 1b: Oral Communication

SPC 110, SPC 111, SPC 113, SPC 120, SPC 230, THA 105, THA 114

GOAL 2: Analytical Skills

ANT 100, ART 111, ART 121, ART 161, ART 171, AST 120, AST 121, BIO 115, BIO 120, BIO 121, BIO 140, CHE 121, CHE 131, CHE 151, CIS 110, CIS 111, CIS 155, ECO 110, ECO 121, ECO 122, EDU 100, ENG 102, ETP 110, ESW 206, ESW 220, ESW 235, ESW 245, GEO 110, GEO 135, GEO 210, GEO 220, GEO 235, GLG 115, GLG 120, GLG 121, GLG 125, GLG 151, HCP 120, MAT 103, MAT 106, MAT 131, MAT 140, MAT 188 & MAT 189 in combination, MAT 190, MGT 210, MUS 221, PHI 100, PHI 101, PHI 115, PHI 120, PHY 120, PHY 121, PHY 151, POL 101, POL 124, PSY 101, SOC 101, SPC 110, SPC 111, SPC 120, SPC 125, SPC 225, SPC 230

GOAL 3: Quantitative Skills

MAT 103, MAT 106, MAT 131, MAT 140, MAT 188 & MAT 189 in combination, MAT 190

GOAL 4: Computer Fluency

CIS 110, CIS 111, CIS 155, GEO 210, GEO 220, OFM 101

GOAL 5: Information Literacy (when paired with ENG 101)

AST 120, CIS 110, CIS 111, COM 200, COM 230, ECO 121, ECO 122, EDU 100, EDU 245, ENG 101, ENG 102, ENG 115, ENG 117, ENG 201, ENG 221, ESW 102, ESW 180, ESW 206, ESW 207, ESW 220, ESW 224, ESW 235, ESW 240, ESW 245, GEO 110, GEO 207, GEO 220, GEO 235, GLG 121, HCP 120, MUS 110, PHI 101, PHI 115, PHI 120, PHY 120, POL 101, SOC 101, SOC 103, SPC 110, SPC 111, SPC 120, SPC 125, SPC 202, SPC 225, SPC 230

GOAL 6: Intellectual Heritage

ART 101, ART 102, ART 103, ENG 201, ENG 212, ENG 221, ENG 222, ENG 246, HCP 120, HIS 101, HIS 102, HIS 122, HIS 203, HIS 205, HIS 213, HIS 219, HIS 234, HIS 235, HIS 250, HIS 260, MUS 110, PHI 101, PHI 120

GOAL 7: Aesthetic Sensibility & The Arts

ART 101, ART 102, ART 103, ART 111, ART 121, ART 161, ART 171, COM 103 & COM 163 in combination, COM 230, DAN 102, DAN 104, DAN 110, DAN 121, DAN 123, DAN 151, ENG 201, ENG 202, ENG 211, ENG 212, ENG 221, ENG 222, ENG 235, ENG 236, ENG 237, ENG 238, ENG 245, ENG 246, ENG 248, ENG 255, ENG 256, ENG 257, ENG 265, ENG 266, ENG 275, GEO 220, HIS 101, HIS 121, MUS 110, MUS 140, MUS 146, MUS 221, MUS 260, MUS 261, MUS 262, MUS 263, THA 105, THA 114

GOAL 8: Physical & Life Sciences

AST 120, AST 121, BIO 120, BIO 121, BIO 140, CHE 121, CHE 131, CHE 151, GLG 115, GLG 120, GLG 121, GLG 125, GLG 151, PHY 120, PHY 121, PHY 151

GOAL 9: Behavioral & Social Sciences

ANT 100, ANT 101, ANT 104, ECO 110, ECO 117, ECO 121, ECO 122, EDU 100, ESW 207, ESW 255, GEO 110, GEO 130, GEO 207, GEO 235, HSW 105, HIS 101, HIS 102, HIS 203, HIS 205, HIS 213, HIS 219, HIS 234, HIS 235, HIS 250, HIS 260, POL 101, POL 124, POL 125, POL 202, PSY 101, PSY 137, PSY 200, PSY 206, PSY 214, PSY 232, PSY 255, SOC 101, SOC 103, SOC 105, SOC 224, SOC 230, SPC 115

GOAL 10: Exercise & Health Science

DAN 101, DAN 102, DAN 121, ESW 100, ESW 101, ESW 102, ESW 106, ESW 107, ESW 113, ESW 123, ESW 128, ESW 137, ESW 141, ESW 146, ESW 147, ESW 148, ESW 160, ESW 180, ESW 185, ESW 206, ESW 207, ESW 210, ESW 220, ESW 224, ESW 235, ESW 240, ESW 245, ESW 255, GEO 207, HCP 185, NUR 210, PSY 255

GOAL 11: Civic Responsibility

ANT 101, ANT 104, BIO 115, COM 100 & COM 160 in combination, ECO 117, ECO 121 & ECO 122 in combination, GEO 130, GEO 135, GEO 235, HSW 205, IDS 115, POL 101, POL 124, POL 125, POL 202, PSY 137, SPC 120, SPC 125

GOAL 12: Global Perspective & Diversity

ANT 101, ANT 104, ARA 101, ARA 102, ART 101, ART 102, ART 103, ART 121, ART 161, ART 171, ART 111, BIO 115, CHI 101, CHI 102, ECO 117, EDU 245, ENG 212, ENG 222, ENG 246, ENG 255, ESW 185, ESW 206, ESW 207, ESW 255, FRE 101, FRE 102, GEO 110, GEO 130, GEO 207, GEO 235, GER 101, GER 102, HCP 120, HCP 185, HIS 101, HIS 102, HIS 122, HIS 203, HIS 205, HIS 214, HIS 218, HIS 220, HIS 234, HIS 235, HIS 240, HIS 250, HIS 260, HSW 105, IDS 115, ITA 101, ITA 102, JPN 101, JPN 102, MGT 111, MGT 210, MKT 111, PHI 101, PHI 115, PHI 120, POL 101, POL 124, PSY 137, PSY 255, REA 110, SOC 101, SOC 105, SOC 224, SOC 230, SPA 101, SPA 102, SPA 230, SPC 111, SPC 115, THA 105, THA 114

GOAL 13: Ethical Reasoning & Behavior

ACC150, ANT 104, BIO 115, CIS 111, CJS 205, COM 200, ECO 117, ESW 255, ETP 110, GEO 235, HCP 114, HCP 120, HIS 101, HIS 102, HIS 205, HIS 213, HIS 214, HIS 218, HIS 234, HIS 235, HIS 260, HSW 105, MAS 114, MGT 111, MGT 210, MKT 111, OFM 175, PHI 100, PHI 101, PHI 115, PHI 120, POL 202, PSY 137, PSY 255, SOC 103, SOC 105, SPC 115, SPC 202

ARTS AND HUMANITIES DIVISION

COMMUNICATION (A.A.)

Purpose

Graduates will be able to pursue continued study beyond the 2- year A. A. degree or obtain entry-level positions as an event production manager, reporter, and correspondent.

Program Outcomes

A graduate should be able to:

- Demonstrate familiarity with the various disciplines within the Communication field.
- Demonstrate familiarity with the ethical basis for communicating with diverse audiences in multiple contexts to meet the goal(s) of the intended communication.
- Recognize and employ informative and persuasive strategies, assess reasoning and identify, evaluate and utilize evidence to communicate ideas to a specific audience.
- Demonstrate heightened awareness of the civic responsibilities of communicators in a free society.
- Apply rhetorical analysis and media literacy skills to advance civic responsibility.

Associate of Arts in Communication Degree

FIRST SEMESTER

| | | |
|----------|---|-------------------|
| COM 100 | Mass Media and Society..... | 2 |
| COM 160 | Media Literacy Workshop | 1 |
| ENG 101 | English Composition I..... | 3 |
| Elective | Core Goal 6: Intellectual Heritage..... | 3 |
| Elective | Core Goal 3: Quantitative Skills..... | 3 |
| PSY 101 | Introduction to Psychology | 3 |
| | | (15 Credit Hours) |

SECOND SEMESTER

| | | |
|-----------|---|-------------------|
| ENG 102 | English Composition II..... | 3 |
| SPC 120 | Public Speaking | 3 |
| THA 114 | Introduction to Theatre | 3 |
| Elective* | Core Goal 4: Computer Fluency..... | 3 |
| Elective* | Core Goal 8: Physical and Life Sciences | 4 |
| | | (16 Credit Hours) |

THIRD SEMESTER

| | | |
|------------|---|-------------------|
| Elective* | Communication or Speech..... | 3 |
| Elective* | Communication or Speech..... | 3 |
| Elective* | ECO, POL or GEO..... | 3 |
| Elective* | English..... | 3 |
| Discipline | History COM 210, 211, 213, 214, 216, or 217 | 3 |
| | | (15 Credit Hours) |

FOURTH SEMESTER

| | | |
|-----------|---|---|
| Elective* | Communication or Speech..... | 3 |
| Elective* | Communication or Speech..... | 3 |
| Elective* | Core Goal 13: Ethical Reasoning and Behavior..... | 3 |

| | | |
|-----------|---|-------------------|
| Elective* | English Literature | 3 |
| Elective* | Core Goal 10: Exercise and Health Sciences..... | 2 |
| | | (14 Credit Hours) |

TOTAL SEMESTER CREDIT HOURS: 63-64

* Student must consult an advisor for recommended electives, to meet requirements at transfer institutions.

** Transfer requirements vary among four-year institutions. Please check with an advisor prior to selecting a math course

DANCE (A.A.)

Purpose

The Dance program is designed for students planning to transfer to a baccalaureate program in Dance. The program provides both a liberal arts (core studies) background and dance coursework designed to prepare students for successful transfer to a four-year institution as a Dance major. Some graduates have gone directly into careers teaching at private dance studios/schools.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Demonstrate intermediate-level proficiency in modern dance and ballet technique.
- Perform in-class improvisations alone, with a partner, and in a group with commitment to the movement.
- Choreograph and perform a dance using basic principles of dance composition.
- Perform selected dance repertory for the public according to established criteria.
- Analyze cultural influences on contemporary dance.
- Integrate critical elements of dance training into personal dance practice.

Students enrolled in the Dance A.A. program must earn a C or better in all DAN courses for graduation.

Curriculum

FIRST SEMESTER

| | | |
|-------------|--|---|
| DAN 101** | Introduction to Dance Studies..... | 3 |
| DAN 104* ** | Modern Dance I..... | 3 |
| DAN 155** | Dance Performance Ensemble I | 1 |
| ENG 101 | English Composition I | 3 |
| Elective | Core Goal 3: Quantitative Skills..... | 3 |
| | | (students may not take MAT 103 to meet this requirement.) |
| Elective | Core Goal 6: Intellectual Heritage Intellectual Heritage and Core Goal 9: Behavioral and Social Sciences | 3 |
| | | (16 Credit Hours) |

SECOND SEMESTER

| | | |
|-------------|-------------------------------------|-------------------|
| DAN 123* ** | Ballet I | 3 |
| DAN 151** | Dance Improvisation..... | 3 |
| DAN 156** | Dance Performance Ensemble II | 1 |
| ENG 102** | English Composition II..... | 3 |
| MUS 120** | Music Fundamentals.. .. | 3 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| | | (16 Credit Hours) |

THIRD SEMESTER

| | | |
|------------|---|-------------------|
| DAN 223** | Ballet II | 3 |
| DAN 161** | Dance Repertory and Performance I | 3 |
| DAN 251** | Dance Composition | 3 |
| Elective** | ESW 147 Mat Pilates or ESW 148 Hatha Yoga | 2 |
| Elective | Core Goal 8: Biology or Chemistry..... | 4 |
| | | (15 Credit Hours) |

FOURTH SEMESTER

| | | |
|------------------|--|-------------------|
| DAN 204** | Modern Dance II..... | 3 |
| DAN 110** | Introduction to Dance as Art in America | 3 |
| DAN 157** | Dance Performance Ensemble III | 1 |
| Dance Elective** | *(Dan 102, 103, 121 or 122 may not be used to fulfill this requirement)..... | 3 |
| Elective | Core Goal 12: Global Perspective and Core Goal 13: Ethical Reasoning..... | 3 |
| Elective | Public Speaking | 3 |
| | | (16 Credit Hours) |

This curriculum outline represents the minimum requirements for the A.A. in Dance degree. Students planning to transfer as third year dance majors may need to take additional dance courses. Check the requirements of the transfer institution. Students planning to transfer as dance majors are recommended to take at least two DAN technique courses per semester, which will require additional hours of study.

TOTAL SEMESTER HOURS CREDIT: 63

* Students who cannot demonstrate a fundamental level of proficiency in modern dance and ballet may be required to take DAN 103 and/or DAN 122.

** Course must be completed with a C or better to complete program.

DIGITAL BROADCASTING (A.A.S.)

Purpose

The A.A.S. curriculum offers a comprehensive background and digital broadcasting expertise comparable to the first two years at a media conservatory.

Graduates will be able to obtain entry-level positions leading to those of producer or director. Entry-level positions include: camera operator, broadcast technician, photojournalist, videographer, video editor, production manager, unit production manager, assistant director, assistant producer, production assistant, grip, gaffer, technical director, multi-media artist, multimedia developer, broadcast news writer, scriptwriter, reporter, and correspondent.

Program Outcomes

Upon completion of the program, graduates will:

- Apply a basic knowledge of communication history and theory to practical use.
- Use professional techniques and tools to conceive, plan, design, write, produce and edit programs, projects, and visual and audio storytelling packages.
- Tell, write and otherwise present a story using video and audio production techniques.
- Apply practical knowledge of terminology, process, procedures, and use of current technology to enter entry-level employment in the broadcasting or electronic media field.

FIRST SEMESTER

| | | |
|----------|--|-------------------|
| COM 100 | Mass Media and Society. | 2 and |
| COM 160 | Media Literacy Workshop | 1 |
| SPC 110 | Introduction to Speech-Communication or | |
| SPC 120 | Public Speaking | 3 |
| ENG 101 | English Composition I | 3 |
| THA 114 | Introduction to Theatre | 3 |
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 9: Behavioral and Social Sciences | 3 |
| | | (15 Credit Hours) |

SECOND SEMESTER

| | | |
|-----------------|---|-------------------|
| COM 101 | Survey of Mass Media Industries in the United States..... | 2 and |
| COM 161 | Media Industries Workshop | 1 |
| COM 103 | Introduction to Video Production Equip. | 2 and |
| COM 163 | Visual Storytelling Workshop | 1 |
| COM 120 and 121 | Introduction to Scriptwriting and Workshop..... | 3 |
| OR | | |
| COM 123 and 124 | Intro to Writing for Broadcast News and Workshop | 3 |
| COM 230 | The Movies: Meanings and Methods | 3 |
| Elective | Core Goal 3: Quantitative Skills..... | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2 |
| | | (17 Credit Hours) |

THIRD SEMESTER

Discipline History Elective

| | | |
|------------------------|--|-------------------|
| Discipline | History ART 105, COM 210, 211, 216 or 217..... | 3 |
| COM 200 | Ethics, Responsibility, Mass Media and the Law | 3 |
| COM 166 and 167 | Introduction to Electronic Journalism and Workshop | 3 |
| OR | | |
| COM 220 and 221 | Scriptwriting and Workshop..... | 3 |
| COM 166 | Introduction to Electronic Journalism | 2 and |
| COM 167 | Introduction to Electronic Journalism Workshop .. | 1 or |
| COM 220 | Scriptwriting | 2 and |
| COM 221 | Scriptwriting Workshop | |
| COM 250/260/270 or 280 | Production Elective | 2 and |
| COM 251/261/271 or 281 | Production Workshop Elective..... | 1 |
| Elective | Core Goal 8: Physical and Life Sciences | 4 |
| | | (16 Credit Hours) |

FOURTH SEMESTER

| | | |
|----------------------|---|-------------------|
| Elective | Communication or Art | 3 |
| COM 208 and 209 | Introduction to Media Operations and Workshop | 3 |
| OR | | |
| COM 223 and 224 | Electronic Journalism Production and Workshop..... | 3 |
| OR | | |
| COM 248 | Directing Actors..... | 3 |
| COM 235 | Current Issues in Mass Media | 3 |
| COM 266, 276, or 283 | Production Elective..... | 2 |
| COM 267, 277, or 284 | Production Workshop Elective..... | 1 |
| COM 290 | Communication Capstone..... | 1 |
| Elective | ANT 104, GEO, 130, POL 101 or SOC 101..... | 3 |
| | | (16 Credit Hours) |

TOTAL SEMESTER CREDIT HOURS: 64

FINE ART (A.F.A.)

Purpose

The Art program is designed for students planning to transfer to baccalaureate programs or professional schools preparing students for a B.F.A. degree. The curriculum parallels the foundation program of art schools or art programs at a four-year college. Students develop their skills while preparing a comprehensive portfolio. The program allows students to continue studies leading to careers in graphic communications, art education, and/or the fine arts.

Program Objectives

A graduate should be able to:

- Describe visual concepts and express them using appropriate vocabulary in written reviews and oral presentations.
- Examine and compare culturally diverse and historically significant examples of art.
- Analyze and evaluate works of art using descriptive analysis and observation skills to critique, argue, and defend one's work and works created by others.
- Solve problems in the creation of visual products employing the skills of problem identification, research and information gathering, analysis, generation of alternative solutions, and evaluating outcomes.
- Describe and respond to audiences and contexts that artistic solutions must address including recognizing the physical, cognitive, cultural, social, and individual factors that shape aesthetic decisions.
- Create and develop visual form incorporating principles of visual organization and composition, visual hierarchy, symbolic representation, aesthetics, and the construction of meaningful pieces.
- Create a portfolio of work applying the knowledge, techniques, and perceptual skills addressed in the studio.

FIRST SEMESTER

| | | |
|---------|----------------------------|-------------------|
| ART 111 | Drawing I..... | 3 |
| ART 130 | 2-D Design Principles..... | 3 |
| ART 140 | 3-D Design Principles..... | 3 |
| ART 101 | Art History..... | 3 |
| ENG 101 | English Composition I..... | 3 |
| | | (15 Credit Hours) |

SECOND SEMESTER

| | | |
|---------|-----------------------|-------------------|
| ART112 | Drawing II..... | 3 |
| ART 131 | 2-D Color Theory .. | 3 |
| ART138 | Digital Art I .. | 3 |
| ART102 | Art History II .. | 3 |
| ART XXX | Studio Elective*..... | 3 |
| SPC 120 | Public Speaking..... | 3 |
| | | (18 Credit Hours) |

THIRD SEMESTER

| | | |
|---------|----------------------------|-------------------|
| ART | Studio Elective* .. | 3 |
| ART | Studio Elective* .. | 3 |
| ART XXX | Art History Elective*..... | 3 |
| ART 121 | Painting I..... | 3 |
| MAT 106 | Math Applications..... | 3 |
| | | (15 Credit Hours) |

FOURTH SEMESTER

| | | |
|----------|---|----------------------|
| ART | Studio Elective*..... | 3 |
| ART | Studio Elective* .. | 3 |
| ESW XXX | Elective Core Goal 10 Exercise and Science | 2-3 |
| Elective | Core Goal 9 Behavior and Social Science | |
| | Core Goal 10 Exercise & Health Science | 3 |
| Elective | Core Goal 8: Astronomy, Chemistry or Physics | |
| | course that meets Physical and Life Sciences..... | 4 |
| | | (15-16 Credit Hours) |

* Students planning to major in a specific discipline should select electives from the lists below. These are recommendations only. If customization is desired, students should consult with a faculty member. All courses below are 3-credit studio courses.

2D Fine Art

| | |
|---------|---------------|
| ART 122 | Painting II |
| ART 171 | Printmaking I |
| ART 211 | Drawing III |
| ART 221 | Painting III |

3D Fine Art

| | |
|---------|--|
| ART141 | 3-D Design Materials and Techniques |
| ART 145 | Introductory Woodworking |
| ART 245 | Sculpture: Clay Modeling |
| ART 246 | Sculptural Fabrication and Mold Making |
| ART 247 | Advanced Sculpture |

Ceramics

| | |
|---------|--------------|
| ART 161 | Ceramics I |
| ART 261 | Ceramics II |
| ART 262 | Ceramics III |
| ART 266 | Raku Pottery |

Graphic Design

| | |
|---------|---------------------------|
| ART 135 | Typography |
| ART 149 | Page Layout and Design |
| ART 231 | Graphic Design I |
| ART 232 | Graphic Design II |
| ART 233 | Visual Design for the Web |
| ART 237 | Portfolio Workshop |

Illustration

| | |
|---------|-----------------|
| ART 201 | Illustration I |
| ART 202 | Illustration II |
| ART 122 | Painting II |
| ART 211 | Drawing III |

Photography

| | |
|---------|------------------------|
| ART 151 | Photography I |
| ART 152 | Photography II |
| ART 155 | Digital Photography I |
| ART 156 | Digital Photography II |

Printmaking

| | |
|---------|-----------------|
| ART 171 | Printmaking I |
| ART 271 | Printmaking II |
| ART 272 | Printmaking III |

TOTAL SEMESTER HOURS CREDIT: 63-64

LIBERAL STUDIES (A.A.)

Purpose

The Liberal Studies program is designed primarily for those students who plan to transfer to a four-year institution but who remain undecided about a major.

Program Outcomes

A graduate should be able to:

- Demonstrate oral and written communication skills, including competency in information literacy and logical analysis.
- Use mathematical concepts and standards and criteria to solve problems and make decisions.
- Demonstrate technology skills essential for working and living in a technological society.
- Demonstrate general knowledge across the broad categories of intellectual heritage, artistic expression, the natural and physical world, human behavior and physical fitness and health concepts.
- Demonstrate personal engagement in civic life and an awareness of the impact of human activity in the world.
- Explain diverse perspectives, cultures, and values.
- Apply an ethical framework to make informed decisions.

CURRICULUM

Liberal Studies (A.A.)

FIRST SEMESTER

| | | |
|-----------------|--|---|
| ENG 101 | English Composition 1 | 3 |
| Speech Elective | Core Goal 1b: Oral Communication Skills | 3 |
| Math Elective | Core Goal 3: Quantitative Skills | 3 |
| | (Students may not take MAT 103 to meet this goal.) | |
| Elective | Core Goal 4: Computer Fluency | 3 |
| Elective | Core Goal 9: Behavioral and Social Sciences | 3 |
| | (Students may not use a History Course to meet this requirement) | |
| | (15 Credit Hours) | |

SECOND SEMESTER

| | | |
|----------------|---|---|
| ENG 102 | English Composition II..... | 3 |
| HIS 101 or 102 | History of Western Civilization I or II..... | 3 |
| Elective | Core Goal 8: Physical and Life Sciences | 4 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2 |
| Elective | Core Goal 7: Aesthetic Sensibility and The Arts | 3 |
| | (15-16 Credit Hours) | |

THIRD SEMESTER

| | | |
|----------|---|---|
| Elective | Core Goal 11: Civic Responsibility..... | 3 |
| Elective | Core Goal 12: Global Perspectives and Diversity | 3 |
| Elective | Core Goal 13: Ethical Reasoning Behavior | 3 |
| Elective | Elective | 3 |
| Elective | Elective | 3 |
| | (15 Credit Hours) | |

FOURTH SEMESTER

| | | |
|----------|-------------------|---|
| Elective | Elective | 3 |
| Elective | Elective | 3 |
| Elective | Elective | 3 |
| Elective | Elective | 3 |
| Elective | Elective | 3 |
| | (15 Credit Hours) | |

TOTAL SEMESTER HOURS CREDIT: 60-61

MUSIC (A.A.)

Purpose

The Music curriculum is designed for students planning to Transfer to a baccalaureate program in Music. The curriculum Provides both a liberal arts (core studies) background and music Coursework comparable to the first two years at a four year institution.

Program Outcomes

A graduate of the music program will be able to:

- Demonstrate proficiency at the intermediate level on either the guitar or the piano.
- Demonstrate an understanding of the basic principles of tonal harmony.
- Demonstrate functional proficiency in Aural Theory (ear training).
- Describe the musical and cultural characteristics of at least two periods of music history.
- Demonstrate proper use of basic hardware and software tools of music technology.

Program of Study (TOTAL CREDITS 62-63)

This program provides the basic musicianship training appropriate for a broad range of music programs. Those students who are intending to pursue performance-based majors are strongly encouraged to take weekly private lessons on their major instrument. Contact the music coordinator for availability.

- All students must either pass a fundamental musicianship placement test OR take MUS 120 (Fundamentals) before taking any course marked with **
- Students enrolled in the Music AA program must earn a C or better in all MUS courses.
- The Music AA requires completion of a minimum of 33 credits of "major designated" music classes including 4 semesters of ensemble participation.

FIRST SEMESTER

| | | |
|----------------|---|-----|
| MUS 221** | Music Theory 1 | 3 |
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 9: Behavioral and Social Sciences | 3 |
| ENG 101 | English Composition I..... | 3 |
| Any Ensemble | (College Choir, Chamber Choir, Jazz Lab Band, Performance Jazz Ensemble, Chamber Strings, Wind Ensemble)..... | 1 |
| MUS 150 or 170 | Guitar Class 1 or Piano Class 1 | 1 |
| Math Elective | Core Goal 3: Quantitative Skills | 3 |
| | (students may not take MAT 103) | |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2-3 |
| | (16-17 Credit Hours) | |

SECOND SEMESTER

| | | |
|--------------------------------|---|---|
| MUS 231** | Aural Theory 1 | 3 |
| MUS 210,211,212, 213, or 214** | Music History. | 3 |
| ENG 102 | English Composition II..... | 3 |
| Any Ensemble | (College Choir, Chamber Choir, Jazz Lab Band, Performance Jazz Ensemble, Chamber Strings, Wind Ensemble)..... | 1 |
| MUS 151 or 171 | Guitar Class 2 or Piano Class 2. | 1 |
| Elective | Core Goal 11: Civic Responsibility..... | 3 |
| MUS 140** | Intro to Digital Music Technology | 3 |
| | (Fulfills core goal 4: Computer Literacy) | |
| | (17 Credit Hours) | |

THIRD SEMESTER

| | | |
|------------------|---|---|
| MUS 222** | Music Theory II | 3 |
| Elective | Core Goal 1b: Oral Communication Skills | 3 |
| Any Ensemble | (College Choir, Chamber Choir, Jazz Lab Band, Performance Jazz Ensemble, Chamber Strings, Wind Ensemble)..... | 1 |
| Applied Elective | (Guitar Class, Piano Class, Private lessons, or additional Ensemble)..... | 1 |
| Elective | Core Goal 12: Global Perspectives and Diversity | 3 |
| Elective | Core Goal 8: Physical and Life Sciences | 4 |
| | (15 Credit Hours) | |

FOURTH SEMESTER

| | | |
|-------------------------------|---|---|
| MUS 232** | Aural Theory 2 | 3 |
| US 210,211,212, 213, or 214** | Music History | 3 |
| Elective | Music | 3 |
| Elective | Core Goal 13: Ethical Reasoning and Behavior..... | 3 |
| Any Ensemble | (College Choir, Chamber Choir, Jazz Lab Band, Performance Jazz Ensemble, Chamber Strings, Wind Ensemble)..... | 1 |
| Applied Elective | (Guitar Class, Piano Class, Private lessons, or additional Ensemble)..... | 1 |
| | (14 Credit Hours) | |

TOTAL SEMESTER CREDIT HOURS: 62-63

SPECIAL NOTES:

Many four year music programs also require study of a foreign language as part of their curriculum. Students intending to transfer to those schools are advised to take one or two semesters of a foreign language, which can add three to six credits to the total.

GRADUATION REQUIREMENTS

- Students must achieve a minimum of level 2 proficiency on either the guitar or the piano. Students can begin their studies at a higher level by passing the proficiency exam for the previous level. Students who complete proficiency in one instrument are strongly advised to study the other instrument, participate in a second ensemble, or take additional elective courses in music theory, technology, or history.
- Students must earn a C or better in all MUS courses.
- The music department coordinator will maintain a file containing documentation of the progress of each student enrolled in the program. Materials demonstrating satisfactory completion of program outcomes will be submitted by instructors of the appropriate class. This file will be reviewed each semester to assess the individual student's progress. No degree will be awarded until all the required outcomes have been satisfactorily achieved.

SOUND RECORDING AND MUSIC TECHNOLOGY (A.A.S.)

Purpose

The Sound Recording and Music Technology A.A.S. curriculum is designed for students planning to obtain a two-year degree in Sound Recording Technology, Music Production and Music Technology. The degree prepares students to obtain the following entry-level positions: sound technician, audio engineer, recording studio technician, sound engineer for animation and film, audio producer, music producer, digital audio editor, production manager, production assistant, theater sound

designer, and multimedia developer for which both musical and technological knowledge are essential. The A.A.S. curriculum offers a comprehensive background in sound recording, music production, and music technology expertise comparable to the first two years at a media conservatory.

Program Outcomes

Upon completion of the program, graduates will:

- Integrate knowledge and theory of recording industry, sound recording and music technology into productions.
- Use professional sound recording techniques and tools to record, engineer and edit music productions as well as conceive, plan, write, record and edit pieces, projects and production packages.
- Create a professional portfolio including résumé, reel, personal statement and other promotional materials in both print and online.
- Apply knowledge of guitar or piano, tonal harmony, and aural theory to a performance and through productions.
- Apply practical knowledge of terminology, process, procedures and use of current technology to entry-level employment in the recording industry and sound recording field.

FIRST SEMESTER

| | | |
|------------|--|---|
| COM 100 | Mass Media and Society..... | 2 |
| COM 160 | Media Literacy Workshop | 1 |
| MUS 110 | Music Appreciation | 3 |
| SRT 104 | Introduction to Sound Recording Technology | 3 |
| MUS 140++ | Introduction to Digital Music Technology..... | 3 |
| ENG 101 | English Comp 1..... | 3 |
| MUS 150 or | | |
| MUS 170++ | Guitar Class 1 or Piano Class 1 | 1 |
| | (16 Credit Hours) | |

SECOND SEMESTER

| | | |
|------------|------------------------------------|---|
| SRT 250 | Sound Recording Technology 1 | 3 |
| MUS 141++ | Intermediate Digital Music | 3 |
| Elective* | Discipline History* | 3 |
| MAT | Math to Meet Core Goal 3 | 3 |
| ETP 110 | Entrepreneurial Essentials..... | 3 |
| Elective** | Workshop Elective** | 1 |
| | (16 Credit Hours) | |

THIRD SEMESTER

| | | |
|---------------|---|---|
| SRT 256 | Sound Recording Technology 2 | 3 |
| SRT 159 | Introduction to Music Production..... | 3 |
| MUS 241++ | The Business of Music | 3 |
| AST or BIO or | | |
| CHE or PHY | Lab Science to Meet Core Goal 8 | 4 |
| SPC or THA | Speech or Theatre Course to Meet Core Goal 1B | 3 |
| | (16 Credit Hours) | |

FOURTH SEMESTER

| | | |
|-------------|--|---|
| SRT 259 | Music Production..... | 3 |
| SRT 297 | Sound Recording and Music Technology Internship .. | 3 |
| SRT 290 | Sound Recording and Music Technology Capstone ... | 1 |
| MUS 240++ | The Art and Business of Songwriting | 3 |
| ESW 255 or | | |
| ESW 207 | Human Sexuality or Food and Culture | 3 |
| Elective*** | Workshop Elective*** | 1 |
| | (14 Credit Hours) | |

TOTAL SEMESTER CREDIT HOURS: 62

* Choose One for Second Semester History Elective:
COM 213 Rock and Roll, Radio, and the Recording Industry
SRT 214 The Evolution of Sound Recording Technology
MUS 111 Popular Music in America (1900-Present)

- ** Choose One for Second Semester Workshop Elective:
SRT 130 SRT Software Workshop I
SRT 131 Live Sound Recording and Reinforcement Workshop I
- *** Choose One for Third Semester Workshop Elective:
SRT 230 SRT Software Workshop II
SRT 231 Live Sound Recording and Reinforcement Workshop II
- ++ All students must either pass a fundamental musicianship placement test
OR take MUS 120 (Fundamentals) before taking any course marked with++.

THEATRE ARTS (A.A.)

Purpose

The Theatre Arts curriculum is designed for students planning to transfer to a baccalaureate program in Theater or related studies. The curriculum provides both a liberal arts (core studies) background and theater arts coursework comparable to the first two years at a four-year institution.

Program Outcomes

A graduate should be able to:

- Demonstrate an understanding of the personal, social and aesthetic value of the art of theater.
- Demonstrate knowledge of basic, individual and ensemble acting skill.
- Analyze theater history and literature using research, critical thinking skills and performing arts vocabulary.
- Apply skills necessary for the planning, production, direction and evaluation of a theatrical performance.
- Distinguish the roles of actor, director, playwright, designers, producers and other professionals involved in creating theater.
- Comprehend the engagement between artists and audience in the act of theater.

Curriculum

FIRST SEMESTER

| | | |
|----------|---|-------------------|
| THA 105 | Introduction to Acting I: Improvisation and Fundamentals | 3 |
| THA 114 | Introduction to Theater | 3 |
| ENG 101 | English Composition I | 3 |
| Elective | HIS 101, HIS 102, or HIS 205 | 3 |
| THA 150 | Theater Production Workshop I | 3 |
| | | (15 Credit Hours) |

SECOND SEMESTER

| | | |
|----------|--|-------------------|
| THA 106 | Introduction to Acting II: Scene Study | 3 |
| THA 151 | Theater Production Workshop II | 3 |
| COM 100 | Mass Media and Society | 2 |
| COM 160 | Media Literacy Workshop | 1 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| ENG 102 | English Composition II | 3 |
| | | (15 Credit Hours) |

THIRD SEMESTER

| | | |
|-------------------|---|-------------------|
| THA 201 or 205 | Acting for the Camera or Directing: Creating World of Stage | 3 |
| THA 203 | Theater Production Workshop III | 3 |
| Math Elective | Core Goal 3: Quantitative Skills (students may not take MAT 103 to meet this goal) | 3 |
| Elective | ENG 235, ENG 236, ENG 237 or ENG 275 | 3 |
| Elective | Core Goal 8: Physical and Life Sciences | 4 |
| | | (16 Credit Hours) |

FOURTH SEMESTER

| | | |
|----------|--|---|
| Elective | Theater | 3 |
| | | (THA 105, 106, 114, 150, 151, 201, or 203 may not be used to fulfill this requirement) |
| Elective | Music, Art, Communications or Dance | 3 |
| SPC 120 | Public Speaking | 3 |
| Elective | ECO, GEO or POL | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences | 2-3 |
| | | (14-15 Credit Hours) |

TOTAL SEMESTER HOURS CREDIT: 60-61

Students must consult an advisor for recommended electives to meet requirements at transfer institutions.

SPECIALTY CERTIFICATE IN PUBLIC RELATIONS (CERTIFICATE)

Purpose

The Specialty Certificate in Public Relations is designed to prepare students to engage in promoting or creating good will for individuals, groups, or organizations by preparing, writing, presenting and/or displaying favorable publicity material that can be released through various communications channels.

Depending on the student's related educational background, the Specialty Certificate in Public Relations can prepare students for careers as Public Relations Specialist (PR Specialist), Public Information Officer, Communications Specialist, Corporate Communications Specialist, Public Affairs Specialist, Public Relations Account Executive, Public Relations Coordinator, etc.

Program Outcomes

Upon successful completion of the Certificate, each graduate will be able to:

- Identify and discuss the theoretical framework used for public relations
- Differentiate the variety of tasks performed by public relations practitioners in the various professional contexts in which public relations is practiced
- Develop the skills essential to good public relations writing that are characterized by precision, clarity and economy
- Employ the 4-step public relations process to the public relations goals of at least two clients
- Design public relations materials for at least two clients on campus or in the surrounding community in service learning projects

Curriculum

Strategic Written Communication Track: Designed for returning students seeking a career change after losing a Marketing, Advertising, Management or other business related job. In addition, Marketing, Management, Business Administration or other business related majors could add the specialty certificate to concentrate in Public Relations.

Strategic Corporate Communication Track: Designed for returning students seeking a career change after losing a Print Journalism or Broadcast Media related job. In addition, Communications majors could add the specialty certificate to concentrate in Public Relations.

REQUIRED COURSES

There will be a total of three required courses for each track.

Required for both tracks:

| | | |
|---------|--|---|
| SPC 125 | Introduction to Public Relations | 3 |
| SPC 225 | Writing for Public Relations Campaigns | 3 |

Required course for Strategic Written Communication Track:

| | | |
|---------|------------------|---|
| ENG 165 | Journalism | 3 |
|---------|------------------|---|

Required course for Strategic Corporate Communication Track:

| | | |
|---------|-------------------------------|---|
| MKT 111 | Principles of Marketing | 3 |
|---------|-------------------------------|---|

ELECTIVE COURSES

Nine credits of electives will be selected with the help of the Discipline Coordinator/Director. The courses will be selected from the list below.

| | | |
|---------|--|---|
| SPC 120 | Public Speaking | 3 |
| SPC 202 | Persuasion | 3 |
| SPC 230 | Communication in Organizations | 3 |
| COM 100 | Mass Media & Society | 2 |
| COM 160 | Media Literacy | 1 |
| COM 103 | Intro to Video Equipment | 2 |
| COM 163 | Visual Story Telling Workshop | 1 |
| COM 123 | Intro Writing for Broadcast News | 2 |
| COM 124 | Broadcast News Writing Workshop | 1 |
| ART 148 | Computer Graphics I | 3 |
| ART 149 | Page Layout & Design | 3 |
| MKT 131 | Advertising & Promotion | 3 |
| MKT 211 | Electronic Advertising | 3 |

BUSINESS AND ENTREPRENEURIAL INITIATIVES DIVISION

ACCOUNTING (A.A.S.)

Purpose

The Accounting program is designed to prepare the graduate for employment in an entry-level accounting position as a bookkeeper.

Program Objectives

Upon successful completion of this program, graduates will be able to:

- Create financial statements, performing each step in double entry accounting cycle in both a manual and computerized environment utilizing QuickBooks.
- Prepare all calculations, entries and reports for a complete payroll cycle.
- Evaluate financial statements as they affect the profitability, liquidity, and solvency of the business organization.
- Report accounting information relevant for managerial planning and decision making in both a manual and computerized environment utilizing QuickBooks.
- Apply the laws, regulations, and accounting practices pertaining to individual federal taxes.

Note: Students interested in preparing for the Certified Public Accountant (CPA) credential need a baccalaureate degree and should enroll in the Business Administration A.S. transfer degree program.

FIRST SEMESTER

| | | |
|----------|---------------------------------|-----|
| ENG 101 | English Composition I | 3 |
| ACC 110 | Business Mathematics | 3 |
| ACC 115 | Financial Accounting | 4 |
| MGT111 | Principles of Management | 3 |
| Elective | Exercise & Health Science | 2-3 |

(15-16 credit hours)

SECOND SEMESTER

| | | |
|-------------------|---|---|
| ENG 117or ENG102 | Writing for Business and Industry or English Composition II | 3 |
| ACC116 | Managerial Accounting | 3 |
| ACC150 | Legal Environment of Business..... | 3 |
| CIS110 | Management Information Systems..... | 3 |
| ECO 110 or ECO121 | Elements of Economics or Macroeconomics | 3 |

(15 credit hours)

THIRD SEMESTER

| | | |
|----------|--|---|
| CIS 215 | Decision-Making Using Spreadsheets | 3 |
| ACC117 | Payroll Accounting..... | 3 |
| ACC 118 | Professional Bookkeeping | 3 |
| ACC 241 | Tax Accounting | 3 |
| Elective | Elective Core Goal 6: Intellectual Heritage and Core Goal 7: Aesthetic Sensibility | 3 |

(15 credit hours)

FOURTH SEMESTER

| | | |
|----------|---|-----|
| Elective | Core Goal 1b: Oral Communication and Core Goal 11: Civic Responsibility | 3 |
| ACC221 | Accounting Information Systems..... | 3 |
| Elective | ACC 211, ACC 230, ACC 242 or ACC 251 | 3 |
| Elective | ACC, ECO, MGT, MKT, OFM, RES or ETP..... | 3 |
| Elective | Physical & Life Sciences | 3-4 |

(15-16 credit hours)

TOTAL SEMESTER CREDIT HOURS: 60-62

ACCOUNTING (CERTIFICATE)

Purpose

The Accounting Certificate program is designed to prepare students for a bookkeeping position in small- to medium-sized firms or as a payroll, accounts payable, or accounts receivable clerk in a larger firm. All of the courses can be applied toward an Associate Degree in Accounting.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Create financial statements, performing each step in double entry accounting cycle in both a manual and computerized environment utilizing QuickBooks.
- Apply concepts of internal control to business processes.
- Prepare all calculations, entries, and reports for a complete payroll cycle.
- Report accounting information relevant for managerial planning and decision making in both a manual and computerized environment utilizing QuickBooks.

Note: All courses can be applied to the Accounting A.A.S. degree.

FIRST SEMESTER

| | | |
|-------------|--|---|
| ACC 110 | Business Mathematics | 3 |
| ACC 115 | Financial Accounting | 4 |
| MGT 111 | Principles of Management | 3 |
| ENG 117 | | |
| or Elective | Writing for Business and Industry or Core Goal 1b: Oral Communication and Core Goal 11: Civic Responsibility | 3 |
| | (13 credit hours) | |

SECOND SEMESTER

| | | |
|---------|-------------------------------------|---|
| ACC 116 | Managerial Accounting | 3 |
| ACC 117 | Payroll Accounting | 3 |
| CIS 110 | Management Information Systems..... | 3 |
| | (9 credit hours) | |

THIRD SEMESTER

| | | |
|---------|---|---|
| ACC 118 | Professional Bookkeeping | 3 |
| ACC 221 | Accounting Information Systems..... | 3 |
| CIS 215 | Decision Making Using Spreadsheets..... | 3 |
| | (9 credit hours) | |

TOTAL SEMESTER CREDIT HOURS: 31

**ACCOUNTING WITH QUICKBOOKS
(CERTIFICATE OF COMPLETION)**

Purpose

The Certificate program is designed to prepare the graduate for a bookkeeping position in a small to medium sized firm with additional skills in internal control and computerized accounting using QuickBooks software. All of the courses can be applied toward an Associate Degree in Accounting. Additionally, students completing the Accounting with QuickBooks Certificate program will be prepared to pass the Intuit QuickBooks Certified User exam.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Create financial statements, performing each step in double entry accounting cycle in a computerized environment utilizing QuickBooks.
- Report accounting information relevant for managerial planning and decision making in a computerized environment utilizing QuickBooks.
- Apply concepts of internal control to business processes.

Curriculum

FIRST SEMESTER

| | | |
|---------|----------------------------|---|
| ACC 110 | Business Math..... | 3 |
| ACC 115 | Financial Accounting | 4 |
| | (7 Credit Hours) | |

SECOND SEMESTER

| | | |
|---------|-------------------------------------|---|
| ACC 116 | Managerial Accounting | 3 |
| CIS 110 | Management Information Systems..... | 3 |
| | (6 Credit Hours) | |

THIRD SEMESTER

| | | |
|---------|-------------------------------------|---|
| ACC 221 | Accounting Information Systems..... | 3 |
| | (3 Credit Hours) | |

TOTAL SEMESTER CREDIT HOURS: 16

**SPECIALTY CERTIFICATE IN ACCOUNTING
(CPA READINESS)**

The Specialty Certificate in Accounting is designed for experienced students who wish to gain an in-depth expertise in Accounting by pursuing an individually designed course of study of at least 18 credits. This Specialty Certificate can be used as part of the 36 accounting credit-hour requirement for individuals pursuing their Certified Public Accountant (CPA) license (150 total credit-hour educational requirement). Courses offered include:

- ACC 115 – Financial Accounting
- ACC 116 – Managerial Accounting
- ACC 151/152 – Business Law I and II
- ACC 211/212 – Intermediate Accounting I and II
- ACC 221 – Accounting Information Systems
- ACC 230 – Cost Accounting
- ACC 241/242 – Personal and Corporate Taxation
- ACC 251/252 – Auditing I and II
- ACC 261/262 – Advanced Accounting I and II

In consultation with the Accounting Coordinator, a minimum 18 credit sequence of courses to be taken at Montgomery County Community College will be designed. Final approval of your Specialty Certificate program and review of qualifying collegiate transcripts (minimum 30 credits) will be made by the Business and Entrepreneurial Initiatives Division Dean.

BUSINESS ADMINISTRATION (A.S.)

Transfer Curriculum

Purpose

The Business Administration program is designed primarily for those students who plan to transfer to a four-year college or university and major in an area of business such as accounting, finance, international business, management, marketing, human resources management, information systems, etc.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Analyze the preparation of financial statements and managerial accounting reports, and their use to support decision making by internal and external users.
- Analyze macroeconomic and microeconomic environments of business.
- Examine management theory and practices in the key functional areas within an organization in today's global business environment.
- Examine how marketing integrates with other functional areas within the organization as well as society as a whole.
- Apply relevant laws, regulations, and ethical considerations to U.S. and international business activity for potential liability, and legal protection and remedies.

FIRST SEMESTER

| | | |
|---------|---------------------------------------|---|
| ACC 115 | Financial Accounting | 4 |
| ECO 121 | Macroeconomics | 3 |
| ENG 101 | English Composition I..... | 3 |
| MAT 140 | Finite Mathematics for Business | 3 |
| CIS 110 | Management Information Systems..... | 3 |
| | (16 Credit Hours) | |

SECOND SEMESTER

| | | |
|-----------------------|--------------------------------|-------------------|
| ACC 116 | Managerial Accounting | 3 |
| ECO 122 | Microeconomics | 3 |
| ENG 102 | English Composition II..... | 3 |
| MAT 142 | Calculus for Business..... | 3 |
| Elective ² | Core Goal 6 & Core Goal 7..... | 3 |
| | | (15 Credit Hours) |

THIRD SEMESTER

| | | |
|-------------------------|--------------------------------|-------------------|
| MGT 111 | Principles of Management | 3 |
| MAT 131 | Statistics I | 3 |
| Elective | Core Goal 1b..... | 3 |
| Elective | Core Goal 8..... | 4 |
| Elective ^{1,2} | Elective | 3 |
| | | (16 Credit Hours) |

FOURTH SEMESTER

| | | |
|-------------------------|------------------------------------|----------------------|
| MKT 111 | Principles of Marketing | 3 |
| MAT 132 | Statistics II | 3 |
| ACC 150 | Legal Environment of Business..... | 3 |
| Elective | Core Goal 10..... | 2-3 |
| Elective ^{1,2} | Elective | 3 |
| | | (14-15 Credit Hours) |

¹ Check with the school to which you plan to transfer for suggested courses to take. Consider an additional BEI course from ACC, MGT, MKT, ETP 113, or CIS 215

² Students can meet core goals 6 & 7 through a single course that meets both Core Goals or any combination of courses utilizing open electives.

Students should confer with their advisor or a counselor before or during the first semester to be certain that the specific electives taken are the best choices for the four year institutions of their choice.

TOTAL SEMESTER HOURS CREDIT: 61-62

**CERTIFIED BOOKKEEPER
(CERTIFICATE OF COMPLETION)**

Purpose

This certificate is designed to prepare the graduate for a bookkeeping position in a small to medium sized firm. Career students, requiring more in-depth accounting skills, will gain solid technical knowledge and practical skills thereby substantially improving on-the-job performance and providing the skills for higher-level jobs. All of the courses can be applied toward an Associate Degree in Accounting. Additionally, students completing the Certified Bookkeeper Certificate program will take the national certification exam to obtain the American Institute of Professional Bookkeepers' (AIPB) Certified Bookkeeper (CB) designation and will be prepared to pass the national certification exam to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Create financial statements, performing each step in double entry accounting.
- Apply concepts of internal control to business processes.
- Prepare all calculations, entries and reports for a complete payroll cycle.

Curriculum

FIRST SEMESTER

| | | |
|---------|----------------------------|------------------|
| ACC 110 | Business Math..... | 3 |
| ACC 115 | Financial Accounting | 4 |
| | | (7 Credit Hours) |

SECOND SEMESTER

| | | |
|---------|--------------------------------|------------------|
| ACC 117 | Payroll Accounting..... | 3 |
| ACC 118 | Professional Bookkeeping | 3 |
| | | (6 Credit Hours) |

TOTAL SEMESTER CREDIT HOURS: 13

CULINARY ARTS (A.A.S.)

Purpose

The culinary arts degree prepares individuals for a wide variety of entry level positions in the culinary arts industry. The program prepares students with necessary culinary and basic management skills that are utilized in today's hospitality industry. This program provides all of the educational components required for Certified Culinarian certification through the American Culinary Federation Education Foundation.

Program Outcomes

A graduate should be able to:

- Prepare and analyze classic and contemporary culinary dishes.
- Demonstrate and analyze the relation of food to health and nutrition.
- Prepare and analyze a variety of international cuisines.
- Demonstrate and analyze the use of proper purchasing, storage and costing techniques to profitably operate and create menus for a food service establishment.
- Demonstrate and analyze the ability to work in a variety of dining room environments.
- Demonstrate and analyze the knowledge and skills needed to serve a variety of beverages in a food service establishment.
- Prepare and analyze products for a retail environment.
- Demonstrate an understanding of the fundamentals of computer hardware, software, and communications as used in hospitality and culinary operations
- Demonstrate an understanding of mathematic skills related to hospitality and culinary operations.
- Demonstrate an understanding of communication skills necessary to communicate in professional hospitality and culinary operations.
- Successfully complete the National Restaurant Association ServeSafe Sanitation and ServeSafe Alcohol exams.
- Submit for Certified Culinarian (CC) status with the American Culinary Federation.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| CUL 110 | Introduction to the Culinary Profession | 2 |
| CUL 111 | Food Service Sanitation | 2 |
| CUL 120 | Culinary Skill Development..... | 3 |
| CUL 130 | Baking Skill Development..... | 3 |
| MAT 106 | Math Applications | 3 |
| SPC 120 | Public Speaking | 3 |
| | | (16 credit hours) |

SECOND SEMESTER

| | | |
|---------|--|-------------------|
| CUL 121 | Advanced Culinary Skill Development..... | 3 |
| CUL 220 | Menu Planning/Costing/Design..... | 3 |
| CUL 114 | Beverage Management | 3 |
| ENG 101 | English Composition I..... | 3 |
| ESW 206 | Basic Nutrition..... | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|----------|--|-------------------|
| CUL 198 | Culinary and Baking & Pastry Degree Practicum..... | 1 |
| CUL 281 | Retail Service and Operations I | 4 |
| CUL 260 | World Cuisines | 3 |
| CUL 151 | Purchasing for Hospitality Operations..... | 3 |
| Elective | Core Goal 8..... | 4 |
| Elective | Must cover Core Goal 6, 9, 12, and 13 | 3 |
| | | (18 credit hours) |

FOURTH SEMESTER

| | | |
|---------|--|-------------------|
| CUL 282 | Retail Service and Operations II | 4 |
| CUL 222 | Quantitative Foods | 4 |
| CUL 221 | Garde Manger | 3 |
| CUL 211 | Hospitality Entrepreneurial Planning..... | 3 |
| CUL 241 | Hospitality Management Techniques..... | 3 |
| CUL 298 | Culinary and Baking & Pastry Degree Practicum..... | 1 |
| | | (18 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 67

BAKING & PASTRY ARTS (A.A.S.)

Purpose

The Baking & Pastry Arts degree prepares individuals for a wide variety of entry level positions in the baking and pastry industry. The program prepares students with the necessary culinary and basic management skills that are utilized in today's hospitality industry. This program provides all of the educational components required for Certified Pastry Culinarian certification through the American Culinary Federation Education Foundation and Certified Journey Baker through the Retail Bakers of America.

Program Outcomes

A graduate should be able to:

- Prepare and analyze classic and contemporary baked goods.
- Prepare and analyze a variety of artisan breads.
- Prepare and analyze a variety of chocolates and confections.
- Prepare and analyze a variety of occasional cakes.
- Demonstrate and analyze the relation of food to health and nutrition.
- Demonstrate and analyze the use of proper purchasing, storage and costing techniques to profitably operate and create menus for a food service establishment.
- Demonstrate and analyze the ability to work in a variety of dining room environments.
- Prepare and analyze products for a retail environment.
- Demonstrate an understanding of the fundamentals of computer hardware, software, and communications as used in hospitality and culinary operations.
- Demonstrate an understanding of mathematic skills related to hospitality and culinary operations including basic math concepts, recipe conversions, product yielding, recipe costing, sale price and food cost, purchasing management, labor management, revenue management and prediction, income statements, and budgets.

- Demonstrate an understanding of communication skills necessary to communicate in a professional hospitality and culinary environment.
- Successfully complete the National Restaurant Association ServeSafe Sanitation, ServeSafe Alcohol exams.
- Submit for Certified Culinarian (CPC) status with the American Culinary Federation.
- Submit for Certified Journey Baker (CJB) status with the Retail Bakers of America.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| CUL 110 | Introduction to the Culinary Profession | 2 |
| CUL 111 | Food Service Sanitation | 2 |
| CUL 120 | Culinary Skill Development..... | 3 |
| CUL 130 | Baking Skill Development | 3 |
| MAT 106 | Math Applications | 3 |
| SPC 120 | Public Speaking | 3 |
| | | (16 credit hours) |

SECOND SEMESTER

| | | |
|---------|-----------------------------------|-------------------|
| CUL 131 | Artisan Breads | 4 |
| CUL 220 | Menu Planning/Costing/Design..... | 3 |
| CUL 114 | Beverage Management | 3 |
| ENG 101 | English Composition 1..... | 3 |
| ESW 206 | Basic Nutrition..... | 3 |
| | | (16 credit hours) |

THIRD SEMESTER

| | | |
|----------|--|-------------------|
| CUL 198 | Culinary and Baking & Pastry Degree Practicum..... | 1 |
| CUL 281 | Retail Service and Operations I | 4 |
| CUL 230 | Chocolates and Confections | 4 |
| CUL 151 | Purchasing for Hospitality Operations..... | 3 |
| Elective | Core Goal 8..... | 4 |
| Elective | Must cover Core Goal 6, 9, 12, and 13 | 3 |
| | | (19 credit hours) |

FOURTH SEMESTER

| | | |
|---------|--|-------------------|
| CUL 282 | Retail Service and Operations II | 4 |
| CUL 231 | Pastries and Plated Desserts..... | 4 |
| CUL 232 | Occasional and Wedding Cakes | 4 |
| CUL 211 | Hospitality Entrepreneurial Planning..... | 3 |
| CUL 241 | Hospitality Management Techniques..... | 3 |
| CUL 298 | Culinary and Baking & Pastry Degree Practicum..... | 1 |
| | | (19 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 70

CULINARY ARTS (CERTIFICATE)

Purpose

The Culinary Arts certificate prepares individuals for a wide variety of entry level positions in the culinary arts industry. The program gives students the necessary culinary and basic management skills that are utilized in today's hospitality industry. This program provides all of the educational components required for Certified Culinarian certification through the American Culinary Federation Education Foundation.

Program Outcomes

A graduate should be able to:

- Prepare and analyze classic and contemporary culinary dishes.
- Analyze the relation of food to health and nutrition.
- Demonstrate and analyze the use of proper purchasing, storage and costing techniques to profitably operate and create menus for a food service establishment.
- Demonstrate and analyze the ability to work in a variety of dining room environments.
- Demonstrate and analyze the knowledge and skills needed to serve a variety of beverages in a food service establishment.
- Prepare and analyze products for a retail environment.
- Demonstrate an understanding of mathematic skills related to hospitality and culinary operations including basic math concepts, recipe conversions, product yielding, recipe costing, sale price and food cost, purchasing management, labor management, revenue management and prediction, income statements, and budgets.
- Successfully complete the National Restaurant Association ServeSafe Sanitation exam.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| CUL 110 | Introduction to the Culinary Profession | 2 |
| CUL 120 | Culinary Skill Development..... | 3 |
| CUL 130 | Baking Skill Development..... | 3 |
| CUL 111 | Food Service Sanitation | 2 |
| CUL 151 | Purchasing for Hospitality Operations..... | 3 |
| | | (13 credit hours) |

SECOND SEMESTER

| | | |
|---------|--|-------------------|
| CUL 220 | Menu Planning/Costing/Design..... | 3 |
| CUL 121 | Advanced Culinary Skill Development..... | 3 |
| ESW 206 | Basic Nutrition..... | 3 |
| CUL 241 | Hospitality Management Techniques..... | 3 |
| | | (12 credit hours) |

THIRD SEMESTER

| | | |
|---------|---|-------------------|
| CUL 281 | Retail Service and Operations I | 4 |
| CUL 221 | Garde Manger..... | 3 |
| CUL 222 | Quantitative Foods | 4 |
| CUL 198 | Culinary/Baking & Pastry Certificate Practicum..... | 1 |
| | | (12 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 37

**BAKING & PASTRY ARTS
(CERTIFICATE)**

Purpose

The Baking & Pastry Arts certificate prepares individuals for a wide variety of entry level positions in the baking and pastry industry. The program gives students the necessary culinary and basic management skills that are utilized in today's hospitality industry. This program provides all of the educational components required for Certified Pastry Culinarian certification through the American Culinary Federation Education Foundation.

Program Outcomes

A graduate will be able to:

- Prepare and analyze classic and contemporary baked goods.
- Prepare and analyze a variety of artisan breads.

- Prepare and analyze a variety of chocolates and confections.
- Prepare and analyze a variety of occasional cakes.
- Demonstrate and analyze the relation of food to health and nutrition.
- Demonstrate and analyze the use of proper purchasing, storage and costing techniques to profitably operate and create menus for a food service establishment.
- Demonstrate an understanding of mathematic skills related to hospitality and culinary operations including basic math concepts, recipe conversions, product yielding, recipe costing, sale price and food cost, purchasing management, labor management, revenue management and prediction, income statements, and budgets.
- Successfully complete the National Restaurant Association ServeSafe Sanitation

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| CUL 110 | Introduction to the Culinary Profession | 2 |
| CUL 120 | Culinary Skill Development..... | 3 |
| CUL 130 | Baking Skill Development..... | 3 |
| CUL 111 | Food Service Sanitation | 2 |
| CUL 151 | Purchasing for Hospitality Operations..... | 3 |
| | | (13 credit hours) |

SECOND SEMESTER

| | | |
|---------|--|-------------------|
| CUL 220 | Menu Planning/Costing/Design..... | 3 |
| CUL 131 | Artisan Breads | 4 |
| ESW 206 | Basic Nutrition..... | 3 |
| CUL 241 | Hospitality Management Techniques..... | 3 |
| | | (13 credit hours) |

THIRD SEMESTER

| | | |
|---------|---|-------------------|
| CUL 232 | Occasional and Wedding Cakes | 4 |
| CUL 230 | Chocolates and Confections..... | 4 |
| CUL 231 | Pastries and Plated Desserts..... | 4 |
| CUL 198 | Culinary/Baking & Pastry Certificate Practicum..... | 1 |
| | | (13 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 39

Culinary and Baking & Pastry degree and certificate programs are held at The Culinary Arts Institute at 1400 Forty Food Road, Lansdale, PA 19446. Please visit our website at www.mc3.edu/culinary for more information on these programs.

**ENTREPRENEURSHIP
(CERTIFICATE OF COMPLETION)**

Purpose

The Entrepreneurship Certificate Program is designed to prepare students to launch and/or grow a successful business, small or large, profit or nonprofit. Linking theory and practice, students will acquire the knowledge and skills that are essential to managing a viable business.

Program Outcomes

A graduate will be able to:

- Assess and identify viable business opportunities to pursue.
- Develop a sustainable Marketing Plan with realistic implementation capabilities.
- Demonstrate proficiency in fundamental accounting procedures for new or existing entrepreneurial ventures.
- Develop a practical Business Plan with realistic implementation capabilities.

- Demonstrate the proper soft skills of a business person, including the ability to communicate effectively, efficiently and professionally in written and/or oral presentations.

Curriculum

| | | |
|---------|-------------------------------------|---|
| ETP 110 | Entrepreneurial Essentials..... | 3 |
| ETP 111 | Entrepreneurial Marketing .. | 3 |
| ETP 112 | Entrepreneurial Accounting | 3 |
| ETP 113 | Entrepreneurial Business Plan | 3 |

TOTAL SEMESTER HOURS CREDIT: 12

HEALTH SERVICES MANAGEMENT (A.A.S.)

Purpose

The Health Services Management Associates in Applied Science (A.A.S.) degree provides the student with a broad, solid foundation for attaining an entry level clinical management position in a variety of health settings, including private and public practitioners' offices, hospitals, long-term care facilities, and health and wellness centers. The student is prepared to use critical thinking in making relevant management decisions in today's dynamic and expanding health services environment.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Demonstrate effective oral, written, and electronic communication skills appropriate to the health services management environment.
- Utilize critical thinking skills and ethical principles in managing business office situations including customer and personnel relationships.
- Apply business management principles and techniques to the dynamic and expanding health services environment.

Curriculum

FIRST SEMESTER

| | | |
|---------|--|---|
| ACC 110 | Business Math..... | 3 |
| HCP 224 | Medical Terminology..... | 3 |
| CIS 110 | Info Sys for Management w/Computer Applications... | 3 |
| ENG 101 | English Composition I..... | 3 |
| MGT 111 | Principles of Management | 3 |

(15 credit hours)

SECOND SEMESTER

| | | |
|-----------------------|--|-----|
| BIO 103 or 130 | Introduction to Human Anatomy and Physiology or Introductory Anatomy and Physiology | 3-4 |
| HCP 225 | Health Insurance and Professional Billing | 3 |
| ESW 210 or 235 | Holistic Health: Complementary and Alternative Health Practices or Personal Health and Wellness Education..... | 3 |
| MGT 131 | Human Resources Management . | 3 |
| Elective ¹ | Elective ¹ | 3 |

(15-16 credit hours)

THIRD SEMESTER

| | | |
|----------|---|---|
| HCP 228 | Electronic Medical Records Management | 3 |
| ENG 117 | Writing for Business and Industry | 3 |
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| MGT 160 | Customer Relationship Management | 3 |
| Elective | Elective | 3 |

(15 credit hours)

FOURTH SEMESTER

| | | |
|-------------------------|--|---|
| HCP 114,120, or MGT 210 | Medical Law and Ethics for Health Care Professionals, Ethical Issues Affecting Consumers and the Health Care Professions, or Ethical Decision Making in Business..... | 3 |
| MGT 221 ² | Supervision | 3 |
| Elective | Elective | 3 |
| PSY 137 | Introduction to Organizational Psychology | 3 |
| Elective | Core Goal 1b: Oral Communication Skills | 3 |

(15 credit hours)

- 1 MGT 110 Introduction to Business or MAT 106 Math Applications is recommended.
- 2 MAS 116 Medical Business Practices may be substituted.

TOTAL SEMESTER HOURS CREDIT: 60-61

The program provides a stackable educational career pathway for the Medical Office Assistant Certificate of Completion (CS.MOA) and the Medical Coding Certificate of Completion (CS.MC). Students can apply all 19 Medical Office Assistant Certificate of Completion credits to the A.A.S. degree in Health Services Management. Students can apply all 18 credits in the Medical Coding Certificate of Completion to the Health Services Management A.A.S. Medical Assisting graduates who would like to pursue additional educational opportunities and enhance their careers can apply 25 Medical Assisting certificate credits to the A.A.S. degree in Health Services Management. This program would also be attractive to those without prior coursework who want to pursue a management degree and a career in healthcare management.

Concentration in Medical Coding leading to a Certificate of Completion

- First Semester: HCP 224 Medical Terminology
- Second Semester: BIO 103 Introduction to Human Anatomy Physiology and HCP 226 Principles of Medical Coding I
- Third Semester Elective: HCP 227 Principles of Medical Coding II and HCP 228 Electronic Health Records Management
- Fourth Semester Elective: HCP 230 CPT Coding and Reimbursement Methods

This 18-credit Certificate of Completion provides students with the opportunity to concentrate study in Medical Coding and health services administrative practices and procedures. The student will develop the necessary job skills to attain success in an entry level coding position. Successful completion of the Medical Coding Certificate of Completion provides eligibility for the American Academy of Professional Coders' Certified Professional Coder (CPC) examination, and/or additional coding professional certifications (Certified Coding Associate (CCA®)/ Certified Coding Specialist (CCS®) based on the individual student's previous qualifications and background.

**Concentration in Medical Office Assistant
leading to a Certificate of Completion**

- First Semester: HCP 224 Medical Terminology and CIS 110 Information Systems for Management with Computer Applications
- Second Semester: HCP 225 Health Insurance and Professional Billing
- Third Semester Elective: HCP 228 Electronic Health Records Management
- Fourth Semester Elective: HCP 114 Medical Law and Ethics for Health Care Professionals and HCP 116 Medical Business Practices

The 19-credit Medical Office Assistant Certificate of Completion (CS.MOA) provides students with the opportunity to build a comprehensive foundation in administrative medical office assistant skills. Students will develop competency in the performance of medical office administrative procedures and develop the critical thinking skills required to seek employment and work effectively in the medical office environment. Successful completion of the Medical Office Assistant Certificate of Completion provides eligibility to complete a national Medical Office Assistant certification examination.

MANAGEMENT (A.A.S.)

Purpose

The Management AAS degree program is designed to provide students with the foundation needed in order to develop competencies in managerial decision making. Students are presented with a broad-based knowledge of the functional areas of management. Course work focuses on theory and application in order to foster the essential skills that are needed to succeed in today's global business environment. Students will develop a keen understanding of business practices as well as learn how to become a more effective decision maker, manager, and leader. Completing this degree program prepares graduates for the workforce in a wide range of careers in both the private and public sectors. The program curriculum includes the College's 13 Core Goals along with specialized concentrations in a variety of business disciplines.

Program Outcomes

Upon successful completion of this program, the graduate will be able to:

- Apply managerial theory and practices to the key functional areas within an organization in today's global business environment.
- Examine the social, legal, and ethical principles that guide appropriate and responsible managerial decision making.
- Apply critical-thinking and analytical acumen in order to determine appropriate actions.
- Exhibit professional and proficient communication skills: verbal, written, and interpersonal.

Curriculum

FIRST SEMESTER

| | | |
|---------|------------------------------------|-------------------|
| ENG 101 | English Composition I | 3 |
| OFM 101 | Business Software Essentials | 3 |
| ACC 105 | Survey of Accounting | 3 |
| XXX XXX | Concentration Requirement | 3 |
| XXX XXX | Concentration Requirement | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|--------------------|--|-------------------|
| ENG 117 or ENG 102 | Writing for Business and Industry or English Composition II | 3 |
| SPC 120 | Public Speaking | 3 |
| XXX XXX | Concentration Requirement | 3 |
| XXX XXX | Concentration Requirement | 3 |
| XXX XXX | Concentration Requirement | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|----------------|---|-------------------|
| ECO 110 or 121 | Elements of Economics or Macroeconomics | 3 |
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| Elective | Core Goal 2: Analytic Skills and Core Goal 3: Quantitative Skills | 3 |
| XXX XXX | Concentration Requirement | 3 |
| XXX XXX | Concentration Requirement | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|-----------|---|----------------------|
| Elective | Core Goal 8: Physical and Life Sciences | 3-4 |
| Elective* | Core Goal 10: Exercise and Health Sciences and Core Goal 12: Global Perspectives and Diversity | 2-3 |
| XXX XXX | Concentration Requirement | 3 |
| XXX XXX | Concentration Requirement | 3 |
| XXX XXX | Concentration Requirement | 3 |
| | | (15-16 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60-61

* Students taking MGT 111 or MKT 111 may select a course that meets only Core Goal 10 rather than selecting a course that meets both Core Goal 10 and 12.

Concentration Requirements

Management:

| | |
|-----------------------|---|
| MGT 110 | Introduction to Business |
| MGT 131 | Human Resources Management |
| ACC 150 or ACC 151 | Legal Environment of Business Business Law I |
| MGT 111 | Principles of Management |
| MGT Elective | Elective 1 |
| ETP 110 or ETP 113 | Entrepreneurial Essentials Entrepreneurial Business Plan |
| MGT 221 | Supervision |
| Elective | ACC, ECO or MKT |
| MGT Elective | Elective 2 |
| MGT 210 | Ethical Decision Making in Business |

Marketing:

| | |
|-----------------------|---|
| MGT 110 | Introduction to Business |
| MKT 111 | Principles of Marketing |
| ACC 150 or ACC 151 | Legal Environment of Business Business Law I |
| MKT 121 | Personal Sales Management |
| MKT 131 | Advertising and Promotion |
| ETP 110 or ETP 113 | Entrepreneurial Essentials Entrepreneurial Business Plan |
| MKT 211 | Electronic Marketing |
| Elective | ACC, ECO or MGT |
| Elective | MKT 198 Coop Internship Marketing I ¹ |
| or SPC 125 | Introduction to Public Relations |
| MGT 210 | Ethical Decision Making in Business |

¹MKT 198 Internship is strongly recommended.

Hospitality Management:

| | |
|---------|---|
| HOS 111 | Intro. to Hospitality Industry |
| HOS 115 | Principles of Customer Service and Bar Management |
| HOS 215 | Concepts of Quantity Food Preparation and Sanitation |
| HOS 220 | Strategies of Hospitality Profitability and Menu Management |
| HOS 231 | Hospitality Marketing |
| HOS 214 | Fundamentals of Special Event Management |
| HOS 241 | Applied Human Resources Management |
| HOS 251 | Hotel Management |
| HOS 261 | Casino and Gaming Management |
| HOS 298 | Coop Internship-Hotel/Rest II |

Office Management:

| | |
|------------|---|
| OFM 110 | Microsoft Word Applications |
| OFM 250 | Proofreading and Editing |
| or OFM 175 | Introduction to Virtual Assistance |
| MGT 111 | Principles of Management |
| OFM 161 | Modern Office Management |
| CIS 215 | Decision Making Using Spreadsheets |
| CIS 231 | Project Management/MGT 231 Project Management |
| OFM 243 | Integrated Office Software Applications |
| or OFM 170 | Virtual Office Careers and Technologies |
| Elective | MGT 110 Introduction to Business, MGT 131 Human Resources Management, MGT 160 Customer Relationship Management, ETP 110 Entrepreneurial Essentials, ACC 150 Legal Environment of Business or OFM 245 Desktop Publishing |
| OFM 198 | Cooperative Internship in OFM |
| Elective | Core Goal 13: Ethical Reasoning and Behavior |

Entrepreneurial Management:

| | |
|------------|-------------------------------------|
| ETP 110 | Entrepreneurial Essentials |
| Elective | ACC, ECO or MKT |
| ETP 111 | Entrepreneurial Marketing |
| ACC 150 | Legal Environment of Business |
| or ACC 151 | Business Law I |
| MGT 110 | Introduction to Business |
| ETP 112 | Entrepreneurial Accounting |
| MGT 111 | Principles of Management |
| MGT 210 | Ethical Decision Making in Business |
| Elective | MGT |
| ETP 113 | Entrepreneurial Business Plan |

Real Estate:

| | |
|------------|-------------------------------------|
| RES 151 | Real Estate Sales |
| RES 171 | Real Estate Construction |
| RES 221 | Real Estate Law |
| MGT 110 | Introduction to Business |
| RES 131 | Residential Property Management |
| or RES 241 | Appraisal of Residential Property |
| RES 152 | R.E. Brokerage & Office Management |
| RES 211 | Real Estate Finance |
| MGT 111 | Principles of Management |
| RES 132 | Non-Residential Property Management |
| or RES 242 | Appraisal: Income Prod. Property |
| ETP 110 | Entrepreneurial Essentials |

ENTREPRENEURIAL MANAGEMENT (CERTIFICATE)

Purpose

The Entrepreneurial Management Certificate program is designed to offer a student the opportunity to increase his or her business/entrepreneurship skill-set and will position the student to become a successful business owner. All of the courses can be applied toward an associate's degree in Management.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Select an appropriate business opportunity to pursue based on market analysis
- Apply managerial theory and practices to the key functional areas of business as they relate to a new entrepreneurial venture
- Create a business plan that can be used to secure financing, investor, or potential business partners

FIRST SEMESTER

| | | |
|--------------|--|---|
| ETP110 | Entrepreneurial Essentials..... | 3 |
| ETP111 | Entrepreneurial Marketing | 3 |
| MGT110 | Introduction to Business | 3 |
| MGT Elective | MGT Elective | 3 |
| ACC150 or | Legal Environment of Business or Business Law I | 3 |
| | (15 credit hours) | |

SECOND SEMESTER

| | | |
|----------|------------------------------------|---|
| ETP112 | Entrepreneurial Accounting..... | 3 |
| ETP113 | Entrepreneurial Business Plan..... | 3 |
| MGT111 | Principle of Management..... | 3 |
| MGT210 | Supervision | 3 |
| Elective | ACC, ECO, or MKT | 3 |
| | (15 credit hours) | |

TOTAL SEMESTER CREDIT HOURS: 30

HOSPITALITY MANAGEMENT (CERTIFICATE)

Purpose

The Certificate in Hospitality Management prepares a student for employment as a supervisor or entry-level management trainee in various hospitality operations, depending on the size of the organization, or enables a student with previous hospitality industry experience to enhance one's career path and to move into upper-level management positions. All of the courses can be applied toward an associate's degree in Management.

Program Outcomes

Upon successful completion of this program, the graduate will be able to:

- Apply critical thinking and communication skills to an entry-level hospitality industry management position.
- Articulate ethical and legal standards for educational and career advancement in the hospitality industry.
- Apply hospitality principles to the management of varied hospitality industry sectors.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| HOS 215 | Concepts of Quantity Food Preparation and Sanitation | 4 |
| HOS 111 | Introduction to the Hospitality Industry | 3 |
| HOS 115 | Principles of Customer Service and Bar Management .. | 3 |
| HOS 220 | Strategies of Hospitality Profitability and Menu Management | 3 |
| HOS 231 | Hospitality Marketing Management | 3 |
| | | (16 credit hours) |

SECOND SEMESTER

| | | |
|---------|--|-------------------|
| HOS 214 | Fundamentals of Special Event Management | 3 |
| HOS 241 | Applied Human Resources Management | 3 |
| HOS 251 | Hotel Management | 3 |
| HOS 261 | Casino and Gaming Management | 3 |
| HOS 298 | Cooperative Internship in Hospitality Management | 2 |
| | | (14 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 30

REAL ESTATE (CERTIFICATE)

Purpose

The Real Estate Certificate program is designed to prepare students for employment in an entry level real estate position and/or increase real estate career opportunities. These areas include residential real estate sales, real estate brokerage & office management, and real estate property management. All of the courses can be applied toward an associate's degree in Management.

Students will need to have completed Real Estate Fundamentals and Real Estate Practice (RES101 and RES102) or hold an active Pennsylvania Salesperson License. Salesperson licensees from states that have reciprocal license agreements with Pennsylvania will be accepted.

Program Outcomes

Upon successful completion of this certificate, graduates will be able to:

- Apply critical thinking and communication skills appropriate to an entry level real estate position
- Apply real estate concepts to function effectively in the residential and commercial real estate sectors
- Articulate legal and ethical standards for career and educational advancement in the real estate industry

FIRST SEMESTER

| | | |
|------------------|--------------------------------|-------------------|
| RES151 | Real Estate Sales | 3 |
| RES171 | Real Estate Construction | 3 |
| RES221 | Real Estate Law | 3 |
| MGT110 | Principles of Business | 3 |
| RES131 or RES241 | RES Elective #1* | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|------------------|---|-------------------|
| RES152 | Real Estate Brokerage & Office Management | 3 |
| RES211 | Real Estate Finance | 3 |
| MGT111 | Principles of Management | 3 |
| RES132 or RES242 | RES Elective #2* | 3 |
| ETP110 | Entrepreneurial Essentials | 3 |
| | | (15 credit hours) |

*** Appraisal electives**

| | |
|--------|---|
| RES241 | - Appraisal of Residential Property |
| RES242 | - Appraisal of Income Producing Property (pre-requisite RES241) |

*** Property management electives**

| | |
|--------|---------------------------------------|
| RES131 | - Residential Property Management |
| RES132 | - Non-residential Property Management |

TOTAL SEMESTER CREDIT HOURS: 30

MANAGEMENT (CERTIFICATE)

Purpose

The Management Certificate program is designed to prepare students for employment in an entry level management position and/or enhance career opportunities. These positions include assistant office manager, junior department manager, management trainee, and other management opportunities. All of the courses can be applied towards an associate's degree in Management.

Program Outcomes

Upon successful completion of this program, the graduate will be able to:

- Exhibit professional and proficient communication skills: verbal, written, and interpersonal
- Apply fundamental knowledge of management concepts to function effectively in a global business environment
- Apply learned management skills required to continue career or educational pursuits

FIRST SEMESTER

| | | |
|----------------|---|-------------------|
| ACC 150 or 151 | Legal Environment of Business or Business Law I | 3 |
| Elective | ACC, ECO, or MKT Elective | 3 |
| MGT 110 | Introduction to Business | 3 |
| MGT 131 | Human Resources Management | 3 |
| MGT Elective 1 | MGT Elective | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|----------------|---|-------------------|
| ETP 110 or 113 | Entrepreneurial Essentials or Entrepreneurial Business Plan | 3 |
| MGT 111 | Principles of Management | 3 |
| MGT 210 | Ethical Decision Making in Business | 3 |
| MGT 221 | Supervision | 3 |
| MGT Elective 2 | MGT Elective | 3 |
| | | (15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 30

OFFICE MANAGEMENT (CERTIFICATE)

Purpose

The Office Management Certificate program is designed to prepare the graduate for an administrative support position in an office environment as an administrative assistant, receptionist, customer service representative, front desk coordinator, or software trainer. All of the courses can be applied toward an associate's degree in Management.

Program Outcomes

Upon successful completion of this program, the graduate will be able to:

- Apply managerial theory and office procedures for diverse business environments
- Demonstrate current computer and software skills to accomplish assigned tasks with efficiency and effectiveness
- Utilize appropriate skills and techniques to organize, prioritize, and complete tasks and produce associated documents in a professional office environment

FIRST SEMESTER

| | | |
|----------|--|-------------------|
| OFM 101 | Business Software Essentials..... | 3 |
| OFM 110 | Microsoft Word Applications | 3 |
| Elective | OFM 250 Proofreading and Editing or OFM 175 Introduction to Virtual Assistance..... | 3 |
| OFM 161 | Modern Office Management | 3 |
| MGT 111 | Principles of Management | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|-------------|---|-------------------|
| Elective | OFM 243 Integrated Office Software Applications or OFM 170 Virtual Office Careers and Technologies ... | 3 |
| CIS 215 | Decision Making Using Spreadsheets..... | 3 |
| Elective | MGT 110, 131, 160, ETP 110, ACC 150 or OFM 245 | 3 |
| MGT/CIS 231 | Project Management | 3 |
| OFM 198 | Coop Internship in OFM I | 3 |
| | | (15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 30

MARKETING (CERTIFICATE)

Purpose

The Marketing Certificate program is designed to prepare the student for employment in an entry level marketing position and/or enhance career opportunities. These areas include sales, customer service, advertising and promotion, public relations, purchasing, and distribution. All of the courses can be applied toward an associate's degree in Management.

Program Outcomes

Upon successful completion of this certificate, the graduate will be able to:

- Exhibit professional and proficient communication skills: verbal, written, and interpersonal
- Apply fundamental knowledge of marketing concepts to function effectively in a global business environment
- Apply learned marketing skills required to continue career or educational pursuits

FIRST SEMESTER

| | | |
|----------------|---|-------------------|
| ACC 150 or 151 | Legal Environment of Business or Business Law I..... | 3 |
| Elective | ACC, ECO, or MGT Elective | 3 |
| MGT 110 | Introduction to Business | 3 |
| MKT 111 | Principles of Marketing | 3 |
| MKT 131 | Advertising & Promotions | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|---|---|-------------------|
| Elective (MKT 198 or SPC 125) | | |
| Coop Internship Marketing 1 or Introduction to Public Relations | | 3 |
| ETP 110 or 113 | Entrepreneurial Essentials or Entrepreneurial Business Plan..... | 3 |
| MGT 210 | Ethical Decision Making in Business..... | 3 |
| MKT 121 | Personal Sales Management | 3 |
| MKT 211 | Electronic Marketing..... | 3 |
| | | (15 credit hours) |

1 MKT 198 Internship is strongly recommended.

TOTAL SEMESTER CREDIT HOURS: 30

PAYROLL SPECIALIST (CERTIFICATE OF COMPLETION)

Purpose

This certificate is designed to prepare the graduate for a payroll position in a small to medium sized firm. Career students, requiring more in-depth accounting skills, will gain solid technical knowledge and practical skills thereby substantially improving on-the-job performance and providing the skills for higher-level jobs. All of the courses can be applied toward an Associate Degree in Accounting. Additionally, students completing the Payroll Specialist Certificate program will be prepared to pass the national certification exam to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Create financial statements, performing each step in double entry accounting.
- Prepare all calculations, entries and reports for a complete payroll cycle.
- Prepare quarterly and year-end payroll tax returns.

Curriculum

FIRST SEMESTER

| | | |
|---------|----------------------------|------------------|
| ACC 110 | Business Math | 3 |
| ACC 115 | Financial Accounting | 4 |
| | | (7 credit hours) |

SECOND SEMESTER

| | | |
|---------|--------------------------|------------------|
| ACC 117 | Payroll Accounting | 3 |
| | | (3 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 10

VIRTUAL ASSISTANCE (CERTIFICATE OF COMPLETION)

Purpose

The purpose of the Certificate of Completion in Virtual Assistance is to provide students with a specialty designation within the administrative assistant industry. This certificate provides students with the hands on and practical knowledge and skills needed to work as a virtual assistant, which is a different designation than the typical administrative assistant. The virtual assistant works remotely

either from home or from a designated location. He or she is often an entrepreneur, with his/her own virtual assistant business, contracting with their own clients. However, many virtual assistants work for a placement agency that matches them up with clients seeking virtual assistance. Additionally, many employees are now being asked by their employers to work from home either on a partial or complete basis and these workers require training and guidance on how to do so. Regardless of the career path, this certificate allows students to prepare themselves for a career as a virtual assistant.

Program Outcomes

The graduate should be able to:

- Evaluate different types of virtual businesses and office careers.
- Complete a self-assessment to determine readiness and suitability for becoming a virtual entrepreneur.
- Determine appropriate communication skills necessary for work in a virtual office.
- Prepare a business plan that demonstrates the logistical, technological and promotional requirements of establishing and maintaining a virtual office.
- Prepare the licensing, insurance, and taxation requirements necessary for creating and operating a home-based virtual business.
- Demonstrate proficiency in the use of industry standard software and Internet resources to plan, participate in and facilitate business meetings and projects in a virtual environment.
- Describe the role, duties, skills and challenges of a virtual assistant.
- Create a business plan that established one’s mission, goals, and objectives and integrates one’s personal, professional and ethical standards as a virtual assistant.
- Determine one’s sustainable competitive advantage in the virtual assistance industry by developing a marketing plan that allows one to grow and maintain a network of resources and clients.
- Prepare for the job market by assembling a virtual assistant skills and resources portfolio.
- Facilitate a virtual assistance simulation project.
- Apply an ethical framework to make informed decisions in day-to-day life as a virtual assistant.
- Identify their competition.
- Clarify their business vision and concept.

| | | |
|---------|---|---|
| ETP 110 | Entrepreneurial Essentials..... | 3 |
| OFM 170 | Virtual Office Careers and Technologies | 3 |
| OFM 175 | Introduction to Virtual Assistance..... | 3 |

TOTAL SEMESTER CREDIT HOURS: 9

SPECIALTY CERTIFICATE

The Specialty Certificate is designed for experienced students who wish to gain in-depth expertise in a specific field by pursuing an individually designed intense course of study of at least 18 credits.

To qualify for this program you must have completed at least 30 credits of approved collegiate study in a discipline other than the one for which the Specialty Certificate is sought. In consultation with the appropriate Discipline Coordinator or Director a minimum 18 credit sequence of courses to be taken at Montgomery County Community College will be designed. Final approval of your Specialty Certificate program and review of qualifying collegiate transcripts will be made by the Business and Entrepreneurial Initiatives Division Dean.

A certificate can be obtained in the following areas of study:

- Accounting
- Hospitality Management
- Marketing
- Management
- Office Management
- Real Estate

NON-CREDIT COURSES

SERVSAFE TRAINING AND CERTIFICATION

Purpose

ServSafe® training sets the industry standard in food safety training and certification.

Primary Goals

Provide required training and certification for food handlers as required by the State of Pennsylvania.

Admission Guidelines

ServSafe® Re-Certification requires a current certificate (issued less than 5 years from the date of the course you take) from ServSafe National Registry of Safe Food Professionals or Thompson Prometric to be presented to the instructor to take the course. This is an approved waiver for Chester County.

Consideration for Certification

A certificate of program completion will be awarded by the College. Upon successful completion, participants will receive their ServSafe Certification.

Articulation

At this time there is no articulation towards a credit degree.

STARTING A SUCCESSFUL WOMAN-OWNED BUSINESS CERTIFICATE

Purpose

This program is designed for women to develop their prospective business ideas into a successful business concept and plan. It is also geared towards women who own an enterprise but want to make it more viable.

Primary Goals

Students will go through a business planning process and understand the components of a successful business plan.

Admission Guidelines

There are no prerequisites for this program.

Consideration for Certification

A certification of program completion will be awarded by the College once a business plan is completed.

Articulation

At this time there is no articulation towards a credit degree.

HEALTH SCIENCES DIVISION

DENTAL HYGIENE (A.A.S.)

Purpose

The Dental Hygiene Program is designed to prepare graduates to become licensed dental hygienists capable of employment in private dental offices and alternative career settings to meet the preventive and therapeutic oral health care needs of the public. Students receive extensive clinical experience in the Central Campus' dental hygiene facility and participate in enrichment experiences at community-based sites. Articulation agreements have been established with baccalaureate degree completion programs to maximize transfer of credits and simplify the admissions process.

Program Goals

The Dental Hygiene Program at the College is designed to provide each student with experiences that facilitate the development of a competent dental hygiene practitioner.

Upon successful completion of the Program, each graduate will be able to:

- Demonstrate the knowledge and skills needed to provide dental hygiene care which meets professional standards and licensing examination eligibility
- Promote optimal oral health and disease prevention as related to the general health and wellness of all patients
- Contribute as an integral member of the healthcare team and assess, plan, implement and evaluate oral health programs for diverse population groups while promoting access to care
- Value lifelong learning and commitment to professional development
- Demonstrate knowledge of legal responsibilities, ethical considerations and values integral to the practice of dental hygiene.

Approval/Accreditation Status

The program in dental hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements." The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-2718 or at 211 East Chicago Avenue, Chicago, IL 60611.

Special Admission Guidelines

Students who wish to be considered for admission to the Program must complete a completed College Application, indicating Dental Hygiene as the major (DH.GS), and present credentials as outlined in the following guidelines:

1. All applicants must submit a final high school transcript or G.E.D. scores including one year of Chemistry with a laboratory component having earned a grade of "C" or better. Equivalent course taken at a post-secondary institution would be an acceptable substitute. Chemistry with a laboratory component must be successfully completed within 10 years prior to enrolling in Dental Hygiene courses.

2. All applicants must submit official college transcript(s), if applicable.
3. In addition, one of the following credentials must be submitted.
 - A. ACT score composite of 18 or above, or
 - B. SAT score of a minimum of 800 total, or
 - C. SAT I or SAT Reasoning combined math and verbal/critical reading score of 920 total, or
 - D. College transcript including 14 semester hours consisting of two 4 credit laboratory science courses and two 3 credit courses which may be from the general education component of the Dental Hygiene curriculum. Grades for the 4 courses must each be a "C" or better and result in a GPA of at least 2.5. The 14 credits will be used for evaluation purposes and are only transferable if successfully completed within the past 10 years. All science courses must be successfully completed within 10 years prior to enrolling in Dental Hygiene courses.
4. All applicants must take College placement tests in English, Mathematics, and Reading and must place above the developmental level prior to enrolling in Dental Hygiene courses.
5. To ensure that applicants are familiar with the work environment in which most hygienists are employed, a minimum of 6 hours observation in a dental office is required. Written verification from the dentist or dental hygienist, written on dental office letterhead, is required of each applicant to verify either current dental office employment or completion of the six hour observation in a dental office. Verification must be submitted to the Dental Hygiene Advisor, sconnell@mc3.edu by January 31st prior to the fall semester that the student desires to enter the Dental Hygiene Program.
6. Due to class size limitations, the College does not guarantee continuous enrollment between non-Dental Hygiene and Dental Hygiene courses.
7. Following application to the Dental Hygiene Program, applicants are advised to take non-dental hygiene courses required by the Dental Hygiene Program (see Sequence of Courses) while awaiting Program acceptance. Due to class size limitations, the College does not guarantee continuous enrollment between non-dental hygiene and dental hygiene courses.

In addition to meeting the Dental Hygiene Program's Essential Functions and Special Admission Requirements, all applicants are required to submit an online Petition for Dental Hygiene Admission. The Petition for Dental Hygiene Admission demonstrates the applicant's attainment of the Dental Hygiene Program Special Admission Requirements.

Admission to the clinical component of the Dental Hygiene Program is based on a point system and ranking procedure. Points are awarded based on place of permanent residence, number of non-DHG courses completed, courses completed at Montgomery County Community College, course grades and date of application. A Total Point Score is derived for each applicant and used in ranking applicants who submit an online Petition for Dental Hygiene Admission for a given admission cycle.

The website www.mc3.edu/academics/areas-of-study/health-sciences/dental-hygiene provides the Petition as well as more detailed guidelines and information. Applicants are strongly urged to meet with the Dental Hygiene Advisor (215.641. 6686) prior to submitting the online Petition for Dental Hygiene Program Admission to verify completion of Special Admission Requirements as well as the accuracy of their records.

Academic Preparation

Applicants who do not have the necessary academic preparation for the Dental Hygiene Program may take preparatory courses at the College to strengthen their academic background. Advisors are available to assist students in selecting appropriate coursework.

Advanced Standing

Applicants who have successfully completed (grade "C" or better) course(s) in an ADA CODA accredited dental assisting or dental hygiene program or similar may qualify for course transfers or challenge examinations. Upon request, information is available from the Dental Hygiene Program Director.

Program Requirements

Dental Hygiene students are required to:

1. Attend the mandatory Dental Hygiene Program Orientation.
2. Demonstrate proof of computer literacy prior to enrolling in Dental Hygiene courses. Successful completion of one of the following will fulfill this requirement: demonstrate computer proficiency obtained through life experiences, demonstrate computer skills obtained at another academic institution including high school or acquired through on the job training, or complete a computer science course such as CIS 100.
3. Purchase all required dental hygiene textbooks, manuals, instruments, supply kits and loupes.
4. Purchase the Dental Hygiene Program uniform kit, including uniforms, uniform jacket, gowns, shoes and name pin.
Note: no ear gauges, piercings other than the ear lobe, or visible tattoos are permitted while in uniform.
5. Purchase student liability insurance annually. A copy of each student's liability insurance policy must be kept on file by the program.
6. Assume all responsibility for transportation to and from enrichment/extramural dental site assignments.
7. Obtain and maintain current CPR certification until completion of the clinical courses by passing the American Red Cross' Professional Rescuer OR the American Heart Association's Health Care Provider course. A copy of each student's CPR certification must be kept on file by the program.
8. Have a comprehensive physical examination, which includes documentation of selected vaccinations and a urine drug screen within six months of entering the Program, verify immunity to Hepatitis B and rubella as well as provide record of a current tetanus shot. NOTE: Students in the Dental Hygiene Program may be exposed to blood-borne pathogens. Students are provided with a thorough knowledge and understanding of infectious diseases, the mechanism of disease transmission, the OSHA blood-borne standards, and CDC guidelines for infection control.

9. Submit application for Child Abuse History Clearance, FBI Clearance, and PA Criminal Record Check annually.
NOTE: A Child Abuse History will and a Criminal Record and/or FBI Record may exclude the student from participating in the Program.
10. Submit documentation of an annual Influenza Vaccination.
11. Students are responsible for finding their own patients to satisfy their semester patient requirements.

Progression in Dental Hygiene

Candidates for the A.A.S. Degree in Dental Hygiene may progress within the program and be recommended to the PA State Board of Dentistry for licensure and eligibility to take the Dental Hygiene National Board and ADEX DH examination if the following requirements have been met:

1. Minimum grade of "C" in all dental hygiene (DHG) and related science (BIO) courses as prerequisite for courses at the next level.
2. Complete courses in prescribed sequence as identified under Sequence of Courses.

All students must complete the Dental Hygiene Program within four academic years of the date of initial enrollment in the program. Eligibility for re-admission to the Program is based upon space availability as well as meeting minimal specified requirements.

Licensure Considerations

Note: The Dental Law #216 of the State Board of Dentistry, Commonwealth of Pennsylvania in Section 4.1 states: The PA State Board of Dentistry has the authority to refuse, revoke or suspend the license of any applicant where the Board shall find that the applicant*

- * Has been found guilty of a crime or misdemeanor involving moral turpitude or having been found guilty of a felony in violation of the laws of the Commonwealth or any other state. For purposes of this clause, the phrase "having been found guilty" shall include a finding or verdict of guilt, an admission of guilt or plea of nolo contendere.
- * Is unable to practice as a dental hygienist with reasonable skill and safety to patients by reason of illness, drunkenness, excessive use of controlled substances, chemicals or any type of material, or as a result of any mental or physical condition.

Additional reasons that the PA State Board of Dentistry may refuse a professional dental hygiene license to an applicant can be referenced in section 4.1 of the Dental Law #216 of the State Board of Dentistry, Commonwealth of PA. All questions related to licensure are to be directed to the Commonwealth of PA, State Board of Dentistry, P.O. Box 2649, Harrisburg, PA 17105-2649.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| ENG 101 | English Composition I | 3 |
| BIO 140 | Microbiology & Immunology | 4 |
| BIO 131 | Human Anatomy & Physiology I | 4 |
| DHG 100 | Theory and Practice of Dental Hygiene I | 4 |
| DHG 111 | Dental Anatomy | 2 |
| DHG 155 | Dental Radiology | 2 |
| | | (19 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| DHG 158 | Theory and Practice of Dental Hygiene II | 5 |
| DHG 159 | Histology and Pathology of the Oral Tissues | 3 |
| DHG 161 | Periodontics I | 2 |
| ENG 102 | English Composition II | 3 |
| BIO 132 | Human Anatomy & Physiology II | 4 |
| | | (17 credit hours) |

SUMMER SESSION I

| | | |
|---------|-----------------------------|------------------|
| DHG 224 | Materials in Dentistry..... | 2 |
| | | (2 credit hours) |

THIRD SEMESTER

| | | |
|---------|--|-------------------|
| DHG 226 | Dental Pain Control | 2 |
| DHG 228 | Theory and Practice of Dental Hygiene III..... | 8 |
| DHG 261 | Periodontics II | 2 |
| PSY 101 | Introduction to Psychology .. | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|-------------|--|-------------------|
| SPC 110/111 | Introduction to Speech Communication | 3 |
| SOC 101 | Introduction to Sociology | 3 |
| ESW 206 | Basic Nutrition | 3 |
| DHG 253 | Community Dentistry | 2 |
| DHG 258 | Theory and Practice of Dental Hygiene IV | 6 |
| | | (17 credit hours) |

TOTAL SEMESTER HOURS: 70 CREDITS

EXERCISE SCIENCE AND WELLNESS (A.S.)

Purpose

The Exercise Science and Wellness A.S. program is designed to provide students a well designed plan of transfer to a four year college or university. By integrating a broad spectrum of general education and Exercise Science and Wellness courses and by offering the ability to focus study in three specific areas of concentration, the curriculum prepares the student for advanced study in a variety of fields such as Exercise Science, Kinesiology, Physical Education, Athletic Training, Sport and Fitness, and Recreational Management.

Program Outcomes

Upon completion of the program the graduate will be able to:

- Demonstrate proficiency in communicating health and wellness concepts
- Apply knowledge of human anatomy and physiology, kinesiology, and exercise science to the field of health and wellness
- Formulate a professional philosophy focused on a specific area within Exercise Science and Wellness
- Prepare a plan for continuing education within Exercise Science and Wellness.

FIRST SEMESTER

| | | |
|----------|---|----------------------|
| Elective | Core Goal 4: Computer Fluency | 3 |
| Elective | Core Goal 8: Physical and Life Science | 3-4 |
| ENG 101 | English Composition I | 3 |
| ESW 102 | Introduction to Exercise Science, Wellness, and Sport Studies..... | 3 |
| SOC 101 | Introduction to Sociology | 3 |
| | | (15-16 credit hours) |

SECOND SEMESTER

| | | |
|----------------------|---|-------------------|
| BIO 129 ¹ | Functional Human Anatomy and Physiology (grade of "C" or better) | 4 |
| Elective | Elective | 3 |
| ENG 102 | English Composition II | 3 |
| ESW 206 | Basic Nutrition | 3 |
| MAT 106 | Math Applications | |
| OR | | |
| MAT 131 ² | Introduction to Statistics I | 3 |
| | | (16 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|-------------------|
| Elective | Elective | 3 |
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| ESW 222 | Applied Kinesiology (offered Fall only)..... | 3 |
| ESW 224 | Exercise Physiology (offered Fall only) | 3 |
| SPC 120 | Public Speaking .. | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|--------------|---|-------------------|
| Elective | Core Goal 6: Intellectual Heritage..... | 3 |
| Elective | Core Goal 13: Ethical Reasoning and Behavior..... | 3 |
| ESW 245 | Safety and First Aid .. | 3 |
| ESW Elective | Elective | 3 |
| ESW 228 | Trends in Exercise Science and Wellness (Spring only) ... | 2 |
| | | (14 credit hours) |

1 Students in Athletic Training concentration take BIO 132 - Anatomy and Physiology II (grade of "C" or better).

2 MAT 131 recommended for the Teaching Health and Physical Education and Athletic Training concentrations.

TOTAL SEMESTER CREDIT HOURS: 60-61

**Concentration in Teaching Health and Physical Education
(total program 61 credits)**

First Semester

| | | |
|----------|---|---|
| Elective | CHE 121 - General Chemistry Inorganic OR PHY 121 - General Physics I | 4 |
|----------|---|---|

Fourth Semester

| | | |
|--------------|--|---|
| ESW Elective | ESW 226 - Assessment of Human Fitness (Spring only) | 3 |
|--------------|--|---|

**Concentration in Recreation and Sport Studies
(total program 60 credits)**

Second Semester

Elective MGT 111 - Principles of Management3

Third Semester

Elective MKT 111 - Principles of Marketing3

Fourth Semester

ESW Elective ESW 215 - Prevention and Care of
Athletic Injury (Spring only)3

**Concentration in Athletic Training
(total program 62 credits)**

First Semester

Elective BIO 131 - Human Anatomy and
Physiology (grade of "C" or better)4

Third Semester

Elective CHE 121 - General Chemistry Inorganic4

Fourth Semester

ESW Elective ESW 215 Prevention and Care of
Athletic Injury (Spring only)3

HEALTH & FITNESS PROFESSIONAL (A.A.S.)

Purpose

The Health and Fitness Professional program provides a comprehensive curriculum and educational experience for students who wish to enter the health and fitness field. The program provides the educational and experiential learning required to complete the American College of Sports Medicine (ACSM) Certified Personal Trainer Examination. During the final semester of the program, students will study for and take the ACSM Certified Personal Trainer Examination. Each student will earn and must maintain the American Heart Association certification in First Aid and Adult Cardio Pulmonary Resuscitation. In addition to these certifications, the program provides the student with a strong theoretical base as well as practical experience via service learning and an experiential practicum in an educational fitness setting.

The breadth and depth of information in the Health and Fitness Professional Program of Study is supplemented by offering students the choice of electives to support their career and/or educational goals. Graduates will have the competencies and experience expected for employment in an entry-level position in the fitness/health industry and allied fields such as personal trainer, corporate wellness, YMCA, commercial recreation and fitness centers, recreational therapy, retirement homes and communities. Upon successful completion of the Health and Fitness Professional program, students also have the option to continue their education in this field at a four year college or university.

Program Mission

The Health and Fitness Professional program has a mission that reflects the mission of Montgomery County Community College. At the

core of this mission is providing a quality educational experience to each student through a variety of instructional techniques. Experiential learning will be emphasized by students conducting fitness/health promotions within the College and greater communities. The focus is to produce graduates who are prepared to be successful in an entry-level position within the health and fitness field.

Program Outcomes

Upon successful completion of the program, graduates will be able to:

- Apply the written Skill Component that includes health appraisals, fitness testing, and personal documentation of goals, results, and client programming
- Apply the exercise science Knowledge Component that includes anatomy and physiology, exercise physiology, human development, aging, risk factors, human behavior and psychology
- Apply the Ability Component that addresses applying knowledge and skills to Exercise prescription.

FIRST SEMESTER

Elective Core Goal 3 Course: Quantitative Skills.....3
 Elective Core Goal 4 Course: Computer Fluency3
 Elective Core Goal 6 Intellectual Heritage and
 Core Goal 7 Course: Aesthetic Sensibility & the Arts 3
 ENG 101 English Composition I.....3
 ESW 102 Intro to Exercise Science,Wellness, and Sport Studies3
 ESW 146 Weight Training, Conditioning, & Weight Control2
 (17 credit hours)

SECOND SEMESTER

BIO 129 Functional Human Anatomy and Physiology
(grade of "C" or better) (offered Spring only).....4
 Elective Core Goal 9: Behavioral and Social Science and
 Core Goal 13 Course: Ethical Reasoning and Behavior.... 3
 ENG 102 English Composition II OR
 or ENG 115 Writing for Technical Communication OR
 or ENG 117 Writing for Business and Industry 3
 ESW 148 Hatha Yoga OR
 or ESW 147 Mat Pilates..... 2
 ESW 206 Basic Nutrition.....3
 (15 credit hours)

THIRD SEMESTER

ESW 222 Applied Kinesiology (offered Fall only).....3
 ESW 224 Exercise Physiology (offered Fall only)3
 ESW 226 Assessment of Human Fitness (offered Fall only)3
 ESW 245 Safety and First Aid3
 SPC 120 Public Speaking3
 (15 credit hours)

FOURTH SEMESTER

Elective Elective3
 ESW 215 Prevention and Care of
 Athletic Injury (offered Spring only).....3
 ESW 227 Exercise Programming for Healthy and
 Special Populations (offered Spring only)3
 ESW 296 Practicum for the Health & Fitness
 Professional (offered Spring only).....3
 ESW Elective ESW Elective 2-3
 (14-15 credit hours)

TOTAL SEMESTER CREDIT HOURS: 61-62

MEDICAL ASSISTING (CERTIFICATE)

Purpose

The Medical Assisting Certificate Program is designed to prepare graduates who are proficient in all administrative and clinical competencies necessary to perform numerous jobs in physicians' offices, hospitals, or other health care facilities. The program integrates theory, laboratory simulations and a clinical practicum experience offered during day hours in a variety of community locations. The Medical Assisting Certificate Program is offered in a 3 continuous semester Day Option and a 4 continuous semester Evening Option. Regardless of the option chosen, students have three years from the date of initial enrollment in the program in which to complete all certificate requirements. Graduates of the certificate program are highly valued members of the health care delivery team who are qualified to complete the American Association of Medical Assistants (AAMA) certification examination for Certified Medical Assistants (CMA) and/or the American Medical Technologists (AMT) certification examination for Registered Medical Assistants (RMA).

The Medical Assisting Certificate Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) (www.caahep.org), upon the recommendation of the Medical Assisting Education Review Board (MAERB). Additional information regarding CAAHEP can be obtained by contacting the organization directly at 1361 Park Street, Clearwater, FL 33756, telephone (727) 210-2350.

Program Mission

The Medical Assisting Program has a mission consistent with the mission of Montgomery County Community College. The program recognizes that students differ in their needs, aspirations and interests. The Medical Assisting Certificate Program is designed to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. As a result, the program is organized to assist and prepare students for the level of technical competence required to become highly qualified and successful Medical Assistants. The program is responsive to its communities of interest including students, graduates, faculty, employers, physicians and the health care community.

Program Outcomes

The goals of this program are to prepare graduates who will:

- Demonstrate the knowledge base (cognitive), skills (psychomotor), behavior (affective), values, and competencies necessary to function as entry level Medical Assisting practitioners in accordance with nationally accepted standards of roles and functions
- Value life-long learning, problem solving, critical thinking and interpersonal communication as means of achieving personal and professional growth.

Admissions Guidelines

All applicants who wish to be considered for admission to the Medical Assisting Certificate Program must present credentials in accordance with the following requirements:

1. Submit a completed College application listing Medical Assisting (C.MA.GS) as the major.
2. Submit high school transcript or GED scores.
3. Submit official college transcript(s), if applicable.

4. Complete the College placement tests in English, Mathematics, and Reading and place above the developmental level in English and Reading and at or above MAT 011 prior to enrolling in MAS courses.
5. Submit a Medical Assisting Petition for Admissions form. The petition can be obtained at the College's Medical Assisting Certificate Program's web site. www.mc3.edu/academics/programs/ma-c.aspx

The Medical Assisting Certificate Program accepts students each academic year. Due to class size limitations, the College does not guarantee continuous enrollment between non-MAS and MAS courses. Eligibility for readmission and/or transfer to the Medical Assisting Certificate Program is based upon space availability as well as meeting the Admission Guidelines. Upon request, additional information is available from the Medical Assisting program administrator.

Program Requirements

Once accepted into the Medical Assisting Certificate Program, students are required to:

1. Purchase all required textbooks, manuals, supplemental supplies, uniforms, and liability insurance. Note: no ear gauges, piercings other than the ear lobe, or visible tattoos are permitted while in uniform.
2. Assume all responsibility for transportation to and from externship assignments including clinical experiences.
3. Obtain and maintain current American Heart Association First Aid certification.
4. Obtain and maintain CPR certification in American Heart Association: CPR for the Health care Provider.
5. Have a comprehensive physical examination which includes documentation of selected vaccinations and a urine drug screen, within six months of program matriculation.
6. Submit application for Child Abuse History Clearance, FBI Clearance, and PA Criminal Record Check. Note: a Child Abuse History will and a Criminal Record and/or FBI Record may exclude the student from participating in the Program.
7. Document proof of Computer literacy
8. Complete a national Medical Assisting certification examination prior to program completion

Day Option

FIRST SEMESTER

| | | |
|---------|--|-------------------|
| BIO 103 | Introduction to Human Anatomy and Physiology |3 |
| HCP 224 | Medical Terminology |3 |
| HCP 225 | Health Insurance and Professional Billing |3 |
| HCP 114 | Medical Law and Ethics for Health Care Professionals |3 |
| | | (12 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| PSY 206 | Human Development – A Life-Span Approach |3 |
| MAS 110 | Laboratory Procedures for Medical Assistants |4 |
| MAS 112 | Medical Assisting – Clinical Assisting Procedures |5 |
| HCP 116 | Medical Business Practices |4 |
| | | (16 credit hours) |

THIRD SEMESTER

| | | |
|---------|--|------------------|
| MAS 120 | Professional Issues in Medical Assisting |1 |
| MAS 130 | Medical Assisting Practicum |5 |
| | | (6 credit hours) |

TOTAL PROGRAM HOURS: 34

Evening Option*

FIRST SEMESTER

| | | |
|---------|--|------------------|
| HCP 224 | Medical Terminology..... | 3 |
| HCP 225 | Health Insurance and Professional Billing..... | 3 |
| HCP 114 | Medical Law and Ethics for Health Care Professionals..... | 3 |
| | | (9 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| BIO 103 | Introduction to Human Anatomy and Physiology..... | 3 |
| PSY 206 | Human Development – A Life-Span Approach..... | 3 |
| HCP 116 | Medical Business Practices..... | 4 |
| | | (10 credit hours) |

THIRD SEMESTER

| | | |
|---------|--|------------------|
| MAS 110 | Laboratory Procedures for Medical Assistants..... | 4 |
| MAS 112 | Medical Assisting – Clinical Assisting Procedures..... | 5 |
| | | (9 credit hours) |

FOURTH SEMESTER

| | | |
|---------|---|------------------|
| MAS 120 | Professional Issues in Medical Assisting..... | 1 |
| MAS 130 | Medical Assisting Practicum..... | 5 |
| | | (6 credit hours) |

TOTAL PROGRAM HOURS: 34

* The Evening Option is designed to be completed in 4 continuous semesters with 6 -10 credits per semester. Students may opt to complete the Medical Assisting Evening Option by completing one or two courses per semester. These students will work with the program administrator to plan their course sequence and must complete the program within a 3 year time frame. During the last semester of the Evening Option students in MAS 130 complete a 180 hour practicum experience during day hours at an affiliated clinical site.

MEDICAL CODING (CERTIFICATE OF COMPLETION)

This 18-credit Certificate of Completion provides students with the opportunity to concentrate study in Medical Coding and health services administrative practices and procedures. The student will develop the necessary job skills to attain success in an entry level coding position. Successful completion of the Medical Coding Certificate of Completion provides eligibility for the American Academy of Professional Coder's Certified Professional Coder (CPC) examination, and/or additional coding professional certifications (Certified Coding Associate (CCA®)/Certified Coding Specialist (CCS®) based on the individual student's previous qualifications and background.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Use coding and classification systems in order to assign valid diagnostic and/or procedure codes for medical billing and reimbursement required by the Health Care Portability and Accountability Act (HIPAA) including the validation of coded clinical information.
- Apply coded data and health information in reimbursement and payment systems appropriate to manage care and all healthcare settings in accordance with relevant legal and compliance issues.
- Create, use, and maintain the Electronic Health Record (EHR) management systems.

Admission Guidelines

Complete the College placement tests in English, Mathematics, and Reading and place above the developmental level in English and Reading and at or above MAT 011.

FIRST SEMESTER

| | | |
|---------|--|---|
| BIO 103 | Anatomy and Physiology..... | 3 |
| HCP 224 | Medical Terminology (1st 7 weeks)..... | 3 |
| HCP 226 | Medical Coding I(2nd 7 weeks)..... | 3 |

SECOND SEMESTER

| | | |
|---------|---|---|
| HCP 227 | Medical Coding II (1st 7 weeks)..... | 3 |
| HCP 228 | Electronic Health Records Management..... | 3 |
| HCP 230 | CPT Coding and Reimbursement Methods (2nd 7 wks.).. | 3 |

MEDICAL LABORATORY TECHNICIAN (A.A.S.)

The nationally accredited* Medical Laboratory Technician program is designed to prepare graduates for employment in hospitals, commercial laboratories, physician office laboratories, and pharmaceutical companies. Upon program completion, students are eligible to take national certification examinations. Medical laboratory technicians follow specific procedures to perform a variety of routine diagnostic tests on blood and other body fluids in chemistry, hematology, urinalysis, immunohematology, microbiology, and immunology. Thus, MLTs, in cooperation with other laboratory personnel, provide physicians with valuable information needed to care for patients. The curriculum combines traditional college courses in the humanities and sciences with clinical courses. Campus facilities and area hospital and commercial laboratories provide an authentic environment where students practice basic procedures, learn interpersonal skills, study diseases, and relate laboratory medicine to other aspects of health care.

*National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Road, Suite 720, Rosemont, IL 60018
www.naacls.org • 773-714-8880

Program Outcomes

Upon successful completion of the program, each graduate will be able to:

- Collect and prepare clinical specimens for analysis.
operate laboratory instruments
- Perform a variety of diagnostic analyses according to prescribed methodology
- Monitor and assess the quality of data generated
- Recognize problems which may occur during testing
- Describe principles, reactions, and reagents for each method studied
- Relate test results to other patient information to the extent required for understanding the analyses
- Demonstrate behavior and attitudes consistent with those of laboratory professionals.

Special Admission Guidelines

Students who wish to be considered for admission to the Medical Laboratory Technician program must present credentials matching the following guidelines:

Students must complete a college application. All students must submit a high school transcript or G.E.D., including one year each of biology and chemistry and two years of math, including algebra with grades of

“C” or better (equivalent courses taken in college would be acceptable substitutes) and one of the following credentials:

- A. ACT composite score of 18 or above and 16 English
- B. SAT scores of 800 total
- C. SAT I or SAT Reasoning combined math and verbal/critical reading score of 920 total or
- D. College transcript including 14 semester hours consisting of two 4-credit science courses with laboratories and two 3-credit courses from the general education component of the MLT curriculum. Grades for the four courses must each be “C” or better and result in a GPA of at least 2.5.

Science courses must be successfully completed within 10 years prior to enrolling in MLT courses.

All students must take placement tests in English, mathematics, and reading and place above the developmental level prior to enrolling in MLT 110.

Admission to the program is selective and completion of minimum requirements does not guarantee acceptance. All applicants must submit an Online Petition for Admission to the MLT Program in February of the year they wish to be considered. Criteria such as completion of non-MLT courses, date of application and date of completion of minimum requirements may be used in the decision process. Admission is based upon a point system and ranking procedure. All students must complete the MLT program within four academic years of the date of initial enrollment in the program. Please contact MLT office at 215-641-6437 or the Information Guide on the MLT Program web page for further information regarding the admission criteria and point system.

Advanced Standing

Applicants who are CLAs or who have experience working in clinical laboratories may be eligible to obtain credit via challenge of certain MLT courses. Information is available from the Program Director.

Program Requirements

Students are required to purchase their own malpractice insurance, uniforms, and to provide their own transportation to and from all clinical assignments and enrichment site visits. In addition to having a physical examination, which includes documentation of selected vaccinations and urine drug screen within six months prior to entering the program, students must also provide evidence of immunity to Hepatitis B. Students must also complete a criminal background check and child abuse clearance. A criminal record may exclude the student from participation in the clinical year. Students in MLT courses may occasionally be required to act as subjects for laboratory tests such as venipuncture, capillary puncture, bleeding time, and urinalysis. Students must attend a mandatory orientation session. Note: no ear gauges, piercings other than the ear lobe, or visible tattoos are permitted while in uniform.

FIRST SEMESTER

| | | |
|---------|--|-------------------|
| MLT 110 | Introduction for the MLT | 4 |
| CHE 131 | Chemistry for the Technologies I | 4 |
| BIO 130 | Introductory Anatomy & Physiology | 4 |
| ENG 101 | ¹ English Composition I | 3 |
| SOC 101 | ¹ Introduction to Sociology | 3 |
| | | (18 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| MLT 123 | Immunohematology Lecture | 2 |
| MLT 124 | Immunohematology Laboratory | 1 |
| MLT 125 | Hematology Lecture | 2 |
| MLT 126 | Hematology Laboratory..... | 1 |
| CHE 132 | Chemistry for the Technologies II | 4 |
| BIO 141 | Clinical Microbiology I .. | 4 |
| ENG 102 | ¹ English Composition II | 3 |
| | | (17 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|----------------------|
| MLT 233 | Clinical Chemistry Lecture | 3 |
| MLT 234 | Clinical Chemistry Laboratory | 2 |
| MLT 235 | Clinical Practicum in MLT I | 3 |
| BIO 241 | Clinical Microbiology II .. | 4 |
| Elective | Core Goal 6: Intellectual Heritage | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences | 2 or 3 |
| | | (17-18 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| MLT 244 | Professional Issues in MLT | 2 |
| MLT 245 | Clinical Practicum in MLT II .. | 6 |
| MLT 246 | MLT Seminar | 1 |
| Elective | Core Goal 7: Aesthetic Sensibility & Arts | 3 |
| | | (12 credit hours) |

¹ Students who are part-time or employed may be encouraged to take these courses prior to formal enrollment in MLT and to see a counselor or faculty member for advising on course selection.

TOTAL SEMESTER CREDIT HOURS: 64-65

MEDICAL OFFICE ASSISTANT (CERTIFICATE OF COMPLETION)

Purpose

The two-semester, 19-credit Medical Office Assistant Certificate of Completion provides students with the opportunity to build a comprehensive foundation in administrative medical office assistant skills. Students will develop competency in the performance of medical office administrative procedures and develop the critical thinking skills required to seek employment and work effectively in the medical office environment. Successful completion of the Medical Office Assistant Certificate of Completion provides eligibility to complete a national Medical Office Assistant certification examination.

Program Outcomes

Upon completion of this Certificate of Completion program the graduate will be able to:

- Employ a wide range of administrative office procedures to complete operational, insurance, managed care, and financial functions in the medical office setting
- Effectively manage all aspects of the electronic health record, including but not limited to: operational, insurance, managed care, and financial functions
- Use critical thinking skills to evaluate the impact of the legal and ethical issues of health care practices in the medical office environment.

Admission Guidelines

Complete the College placement tests in English, Mathematics, and Reading and place above the developmental level in English and Reading and at or above MAT 011.

FIRST SEMESTER

| | | |
|---------|---|------------------|
| HCP 224 | Medical Terminology..... | 3 |
| HCP 225 | Health Insurance and Professional Billing..... | 3 |
| CIS 110 | Information Systems for Management with Computer Applications..... | 3 |
| | | (9 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| HCP 114 | Medical Law and Ethics for Health Care Professionals | 3 |
| HCP 228 | Electronic Health Records Management | 3 |
| HCP 116 | Medical Business Practices | 4 |
| | | (10 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 19

NURSING (A.A.S.)

Purpose

The Nursing Program is committed to the preparation of caring professional nurses who employ critical thinking skills and the nursing process in meeting the human needs of clients in a variety of healthcare settings. Students develop competence in the art and science of nursing within an integrated curriculum which incorporates seminar, classroom, the College Nursing Laboratory, and clinical experiences. Graduates of this Accreditation Commission for Education in Nursing (ACEN), formerly NLNAC, accredited Nursing Program are prepared to complete the National Council Licensing Examination - Registered Nurse (NCLEX-RN). In addition to practicing as a Registered Nurse, graduates may also transfer credits to degree programs beyond the Associate in Applied Science (A.A.S.) degree in Nursing.

Program Outcomes

The Nursing Program graduate will be able to:

- Integrate critical thinking when incorporating knowledge from the sciences and humanities in the delivery of nursing to clients.
- Utilize the nursing process in meeting the healthcare needs of individuals of diverse sociocultural identities across the lifespan.
- Implement the roles of the associate degree nurse in structured settings.
- Demonstrate behaviors that reflect the values of nursing as a caring profession.

Approval/Accreditation Status

The Nursing Program holds...

- Provisional approval by the PA State Board of Nursing
- Accreditation by the Accreditation Commission for Education in Nursing (ACEN). As an additional resource for this information persons may contact, ACEN 3343 Peachtree Road NO, Suite 850, Atlanta, GA 30326, 404-975-5000 <http://acenursing.org>

Program Features

The Nursing Program incorporates an integrated curriculum design which may be completed on a full or part-time basis. Courses required by the Nursing Program curriculum (see Sequence of Courses) are

taught throughout the year. Three classes are admitted to the clinical component of the Nursing Program each year (Fall, Spring and Summer). The availability of seats in each of the three admission cycles is based on the availability of clinical learning opportunities provided to the College by area healthcare agencies.

Special Admissions Requirements

Students who wish to be considered for admission to the clinical component of the Nursing Program must present credentials in accordance with the following requirements:

- Submit a completed College application indicating Nursing as the intended major (NR.GS).
- Submit high school transcript or GED score. Applicants must have completed work equal to a standard high school course with a minimum of 16 units including:
 - 2 units of mathematics (1 of which is algebra).
 - 2 units of science (1 unit of biology and 1 unit of chemistry with a minimum grade of "C") with related laboratory or equivalent. Applicants without high school biology and/or chemistry can satisfy this requirement by completing BIO 121 and/or CHE 121 with a grade of "C" or better.
- In addition, one of the following must also be submitted:
 - ACT score composite of a minimum of 18
 - SAT score of a minimum of 800
 - SATI score of a minimum of 920
 - SAT Reasoning minimum critical reading and math combined score of 920
 - College transcript indicating at least eight (8) credits of lab science courses with a minimum grade of "B" in each course and six (6) credits selected from the Nursing curriculum with an overall minimum recalculated grade point average of 2.5.
- Complete all science courses within 10 years prior to enrollment in the first nursing clinical course, except Anatomy and Physiology I & II, which must be completed within 5 years of enrollment.
- Take the College's Placement Tests in English, Mathematics, and Reading and complete any required developmental courses with a grade of "C" or better.
- Submit official college transcripts for credit evaluation before registering for any course at the College.

Admission Guidelines

Admission to the clinical component of the Nursing Program is very competitive and completion of minimum requirements does not guarantee admittance. After submitting the College application, applicants are advised to take non-nursing courses required by the Nursing Program curriculum (see Sequence of Courses) prior to submitting the online Petition for Admission to the clinical component of the Nursing Program. The online Petition for Admission demonstrates the applicant's attainment of the Nursing Program Special Admission Requirements and Sequence One courses (see Sequence of Courses). Admission to the clinical component of the Nursing Program is based on a point system and ranking procedure. Points are awarded based on place of permanent residence, number of required Nursing Program courses completed, courses completed at Montgomery County Community College, course grades, and the date of application. A Total Point Score is derived for each applicant and used in ranking applicants who submit a completed online Petition for Admission for a given admission cycle. The website <http://mc3.edu/academics/areas-of-study/health-sciences/nursing> provides

a link to the online Petition for Admission and more detailed admission guidelines and procedures. To learn more about the Nursing Program, call 215-641-6551 (Central Campus) or 610-718-1906 (West Campus) for dates and location of Nursing Information Sessions.

Advanced Standing

- A. Applicants considered for advanced standing include transfer students who were in good standing from collegiate professional nursing programs or diploma nursing programs, and Licensed Practical Nurses (LPNs). All advanced standing applicants must submit documents for credit evaluation and determination of placement in the Nursing Program.
- B. Advanced standing applicants must meet all Special Admission Requirements and have successfully completed the equivalent of all courses in Sequences 1 and 2 of the Nursing Program curriculum.
- C. Applicants submit a completed Petition for Advanced Standing Admission <http://mc3.edu/academics/areas-of-study/health-sciences/nursing>). Admissions for advanced standing applicants is on a space available basis.
- D. LPN applicants:
 1. must have graduated from a Practical Nurse Program and hold an unencumbered licensure as a practical nurse.
 2. submit LPN transcript and any college transcripts.
 3. receive credit for NUR 110.
 4. must complete Anatomy & Physiology I & II (BIO 131, BIO 132). A minimum score of "B" may be used to meet Special Admission Requirements (8 credits of lab science courses with a minimum "B" grade in each course).
 5. before registering for NUR 050 - Nursing Role Transition, schedule the Nursing Placement Test for LPNs by calling 215-641-6646. Results of the Nursing Placement Test for LPNs determines the applicant's placement in either NUR 112 or NUR 211.
 6. obtain a score of "C" or better on the Nursing Placement Test for LPNs to be eligible for enrollment in NUR 211.

Note: All Sequence 3 courses must be completed prior to enrollment in NUR 211.

Program Requirements

Upon acceptance to the clinical component of the Nursing Program, students are required to:

- A. Attend the mandatory Nursing Program Orientation.
- B. Purchase student liability insurance annually (approx. \$35).
- C. Purchase the Nursing Program uniform, uniform jacket, shoes, hose, name pin (approx. \$300). Note: no ear gauges, piercings other than the ear lobe, or visible tattoos are permitted while in uniform.
- D. Purchase nursing laboratory supplies (approx. \$55).
- E. Assume all responsibilities for transportation to and from the healthcare agency to which they are assigned for clinical experience.
- F. Have a physical examination, which includes documentation of selected vaccinations and a urine drug screen, within six months prior to entering the Nursing Program's clinical component and annually thereafter.
- G. Maintain current CPR certification until the completion of clinical nursing courses by passing American Heart Association CPR for the Healthcare Provider.
- H. Submit documentation of an Annual Influenza Vaccination.
- I. Submit application for Child Abuse History Clearance, FBI Clearance and PA Criminal Record Check annually (approx. \$75.).

NOTE: a Child Abuse History will and a Criminal Record and/or FBI Record may exclude the student from participation in the clinical component of the Nursing Program.

- J. Complete a summative standardized examination at the completion of the Nursing Program (approx. \$45).

Progression in Nursing

Candidates for the A.A.S. Degree in Nursing may progress within the program and be recommended to the PA State Board of Nursing for licensure and eligibility to take the NCLEX-RN examination if the following requirements have been met:

- A. Minimum grades of "C" in all nursing and related science courses.
- B. Complete each sequence of the Nursing Program curriculum as identified under Sequence of Courses.
- C. Complete all sequences of the Nursing Program curriculum within three years of the date of first enrollment in the Program's clinical component.

Note: A student who withdraws from the clinical component of the Nursing Program and seeks readmission at a later date must successfully complete the requirements in effect when readmitted.

Licensure Considerations

The PA State Board of Nursing may refuse, suspend or revoke any license in any case where the Board shall find that the applicant...

- Has been convicted or has pleaded guilty or entered a plea of nolo contendere or has been found guilty by a judge or jury of a felony or a crime of moral turpitude, or has received probation without verdict, disposition in lieu of trial or an Accelerated Rehabilitative Disposition in the disposition of felony charges, in courts of this Commonwealth, the United States, or any other state, territory or country;
- Has committed fraud or deceit in securing admission to the practice of nursing or to the College's Nursing Program;
- Is unable to practice professional nursing with reasonable skill and safety to clients by reason of mental or physical illness or condition or physiological or psychological dependence upon alcohol, hallucinogenic or narcotic drugs or other drugs which tend to impair judgment or coordination, so long as such dependence shall continue.

For a complete list of reasons why the PA State Board of Nursing may refuse a professional nursing license to an applicant, refer to section 14 of the Professional Nurse Laws P.L. 651, No. 99. All questions related to licensure are to be directed to the Commonwealth of Pennsylvania, State Board of Nursing, P.O. Box 2649, Harrisburg, PA 17105-2649.

Sequence of Courses

Courses in the Nursing major are listed in sequential order. Some courses are required prior to taking other courses. In those cases where a non-nursing course (courses with prefix other than NUR) is listed in a given sequence, it must be taken with or prior to the Nursing course listed in the same sequence.

Sequence 1 —

Prior to Petitioning for Admission to the Nursing Program Clinical Component

| | | |
|---------|------------------------------------|---|
| BIO 131 | Human Anatomy & Physiology I | 4 |
| | (minimum grade of "C" required) | |
| ENG 101 | English Composition I | 3 |
| PSY 101 | Introduction to Psychology | 3 |
| NUR 106 | Concepts of Nursing | 3 |
| | (minimum grade of "C" required) | |

(13 credit hours)

Sequence 2 —

After Acceptance to the Nursing Program Clinical Component

| | | |
|---------|--------------------------------------|---|
| BIO 132 | Human Anatomy & Physiology II* | 4 |
| | (minimum grade of "C" required) | |
| ENG 102 | English Composition II | 3 |
| NUR 110 | Introduction to Nursing | 8 |
| | (minimum grade of "C" required) | |

(15 credit hours)

Prior to Admission to the Nursing Program Clinical Component for Advanced Standing into Sequence 3 or 4

| | | |
|---------|--|---|
| NUR 050 | Nursing Role Transition | 3 |
| | (minimum grade of "Pass" required) | |
| | (this course does not yield credits toward the degree) | |

Sequence 3

| | | |
|---------|--|---|
| BIO 140 | Microbiology & Immunology* | 4 |
| | (minimum grade of "C" required) | |
| SOC 101 | Introduction to Sociology | 3 |
| NUR 112 | Nursing Care of Clients with Uncomplicated Health Care Needs | 8 |
| | (minimum grade of "C" required) | |

(15 credit hours)

Sequence 4

| | | |
|----------|---|---|
| PSY 136 | Personality | 3 |
| Elective | Core Goal 6: Intellectual Heritage OR Core Goal 7: Aesthetic Sensibility and the Arts** | 3 |
| NUR 211 | Nursing Care of Clients with Complex Health Care Needs | 8 |
| | (minimum grade of "C" required) | |

(14 credit hours)

Sequence 5

| | | |
|----------|---|---|
| Elective | Core Goal 6: Intellectual Heritage OR Core Goal 7: Aesthetic Sensibility and the Arts** | 3 |
| NUR 212 | Nursing Management | 8 |
| | (minimum grade of "C" required) | |
| NUR 213 | Professional Issues in Nursing..... | 2 |
| | (minimum grade of "C" required) | |

(13 credit hours)

TOTAL SEMESTER CREDIT HOURS: 70

* Strongly recommended that 6-week summer science courses NOT be taken concurrently with summer clinical nursing courses.

** Select a Core Goal #6 Course: Intellectual Heritage, and Select a Core Goal #7 Course: Aesthetic Sensibility and the Arts

Note: In order to maximize the student's learning there are times when course requirements may necessitate irregular scheduling, adjustments in section assignments, or changes in placement for clinical experience. Students will be informed of any changes as promptly as possible.

PHLEBOTOMY (CERTIFICATE OF COMPLETION)

Purpose

The one semester Phlebotomy Certificate of Completion program is designed to give the student instruction in the field of Phlebotomy. Phlebotomy technicians, who are members of the clinical laboratory team, are responsible for obtaining quality specimens for diagnostic

laboratory testing. The specimens are analyzed which in turn aids the physician in the diagnosis, monitoring and treatment of the patient. Therefore, this makes the phlebotomist an important part of the healthcare team. Additionally, students are trained in adult Cardiopulmonary Resuscitation (CPR). The Phlebotomy program is approved by the National Accrediting Agency for Clinical Laboratory Sciences.* Persons successfully completing this course are eligible to sit for the Phlebotomy Technician (PBT) examination given by the American Society for Clinical Pathology.

*National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road, Suite 720, Rosemont, IL 60018 www.nacls.org 773-714-8880

Program Outcomes

The Phlebotomy Certificate of Completion program is designed to provide the students with:

- The technical skills needed to competently and safely collect and handle blood specimens from a wide variety of patients
- The interpersonal skills needed to interact with others
- The knowledge base needed to pass national certifying examinations
- An introduction to the healthcare professions with emphasis on clinical laboratory science.

Admissions Guidelines

Admission is on a first come, first serve basis during the Fall and Spring. Registrants must be high school graduates or hold a GED. Please contact the MLT Office at 215-641-6437 for further information. All applicants must submit an Online Petition for Admission found on the Phlebotomy Technician web page.

Special Requirements

Students are expected to purchase malpractice insurance, program uniforms and to provide their own transportation to and from clinical assignments. Students must have a physical examination, which includes documentation of selected vaccinations and urine drug screen within six months of entering the program. Proof of Hepatitis B vaccination is required or the student must sign a statement of declination before participating in the clinical portion of the program. Students must also complete a criminal background check and child abuse clearance. Students must attend a mandatory orientation session. Note: no ear gauges, piercings other than the ear lobe, or visible tattoos are permitted while in uniform.

Course

| | | |
|---------|------------------|---|
| MLT 106 | Phlebotomy | 4 |
|---------|------------------|---|

TOTAL SEMESTER CREDIT HOURS: 4

RADIOGRAPHY (A.A.S.)

Purpose

The Radiography Program provides a comprehensive curriculum and educational experiences for students who wish to become integral members of the health care team. The program affords each student with educational opportunities that develop competence in critical thinking, technical skills and interpersonal communication necessary for the practice of diagnostic radiography. Competence is achieved through the integrated use of lecture, laboratory activities, small group presentations, research, and clinical education experiences. Students gain proficiency in the safe application of the principles of

ionizing radiation in both diagnostic and fluoroscopic procedures. This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60602. Graduates are eligible to take the national certifying examination administered by the American Registry of Radiologic Technologists (ARRT).

Program Mission

The Associate in Applied Science degree in Radiography has a mission consistent with the mission of Montgomery County Community College. The program recognizes that students differ in their needs, interests, and aspirations. As a result, the program is organized to assist and prepare students for the level of technical competence required to become highly qualified and successful radiographers. The program will provide students with meaningful educational experiences.

Program Goals and Student Learning Outcomes

The goals of this program are to produce:

1. Students who function as competent, entry-level professionals that meet the needs of the community.
 - Students will be able to adequately perform procedures at entry level competence.
 - Students will select appropriate technical factors for quality patient exams.
 - Students will demonstrate proper radiation practices.
2. Students and graduates who will demonstrate appropriate, professional communication skills.
 - Students will use appropriate vocabulary and language to orally convey information.
 - Students will use a systematic approach to locate and use information to plan and write professional papers.
3. Students/graduates who will develop and practice effective problem solving skills and critical thinking skills.
 - Students will demonstrate the ability to alter technical factors in response to various changes in the clinical setting
 - Students will produce solutions to real-world clinical problems
 - Students will evaluate radiographic images for appropriate positioning and image quality
4. Students/graduates who will conduct him/herself in a professional manner.
 - Students will recognize acceptable professional behaviors
 - Students will practice appropriate professional behaviors
 - Graduates will demonstrate an overall professional demeanor in the workplace
 - Students will discuss the importance of professional development or career advancement

Admissions Guidelines and Procedures

Students who wish to be considered for admission to the Radiography Program must present credentials in accordance with the following requirements:

1. Be at least 18 years of age to participate in any of the RAD courses. Students under the age of 18 may complete any prerequisite or co-requisite courses at the College level in accordance with College policy.
2. Submit a completed college application earmarking Radiography (RT.GS) as the major.
3. Submit high school transcript or GED scores. Applicants must have completed work equal to a standard high school course including:
 - 2 units of mathematics (1 of which is algebra)

- 2 units of science (1 unit of biology and 1 unit of chemistry or physics with a minimum grade of "C" with related laboratory or equivalent. Applicants without high school biology and/or chemistry can satisfy this requirement by completing BIO 121 and/or CHE 121 with a grade of "C" or above.
4. Submit official college transcript(s), if applicable.
 5. Submit one of the following:
 - ACT score composite of 18 or above, or
 - SAT score of a minimum of 800, or
 - SAT I or SAT Reasoning with a combined math and verbal/critical reading score of a minimum of 920 total, or
 - College transcript including 14 semester hours consisting of two 4 credit laboratory science courses and two 3 credit courses from the general education component of the Radiography curriculum. Grades for the 4 courses must each be a "C" or better and result in a GPA of at least 2.5. The 14 credits will be used for evaluation purposes.
 6. All science and math courses must be successfully completed within 5 years prior to enrolling in Radiography courses.
 7. All applicants must take the College placement tests in English, Mathematics, and Reading and must place above the developmental level prior to enrolling in Radiography courses.
 8. Due to class limitations, the College does not guarantee continuous enrollment between non-Radiography and Radiography courses.
 9. Submit an online Petition for Admission to the Radiography Program in January of the year you wish to be considered.
 10. After application to the College, applicants are advised to take non-radiography courses required by the Radiography Program Curriculum (see Sequence of Courses) while awaiting Program acceptance.

The website <http://www.mc3.edu/academics/areas-of-study/health-sciences/radiography> provides the online Petition as well as more detailed guidelines and information. Applicants are strongly urged to meet with a Radiography Advisor (610-718-1944) prior to submitting the online Petition for Radiography Program Admissions to verify completion of Special Admission Requirements as well as the accuracy of their records.

Program Requirements

Once accepted into the Radiography Program, students are required to:

1. Purchase all required textbooks, manuals. (approx.\$1100.00)
2. Adhere to the Radiography Dress Code, which requires purchasing Radiography Program uniforms to include scrubs, lab coat, shoes and positioning markers (approx. \$150.00). Note: no ear gauges, piercings other than a single post in the ear lobes, or visible tattoos are permitted while in uniform. If a clinical site has a dress code more restrictive than that of the Radiography Program, students will adhere to the more restrictive code.
3. Purchase student liability insurance annually. (approx. \$37.00/yr)
4. Submit application for Child Abuse History Clearance, FBI Clearance, and PA Criminal Record Check. Note: a Child Abuse History will and a Criminal Record and/or FBI Record may exclude the student from participating in the Program.
5. Assume all responsibility for transportation to and from the clinical agencies assigned.
6. Obtain and maintain current CPR certification by passing the American Heart Association's Health Care Provider.
7. Have a comprehensive physical examination, which includes documentation of selected vaccinations and a 10 panel urine drug screen, within six months of Program matriculation and annually thereafter.

8. Attend a mandatory Radiography Program Orientation.
9. Submit documentation of an Annual Influenza Vaccination.
10. All students must complete the Radiography Program within four academic years of the date of initial enrollment in the program.
11. Demonstrate proof of computer literacy prior to enrolling in Radiography Program. Successful completion of one of the following will fulfill this requirement: demonstrate computer proficiency obtained through life experiences; demonstrate computer skills obtained at another academic institution including high school or acquired through on the job training, or complete a computer science course such as CIS 100.

Progression in Radiography

Candidates for the A.A.S. Degree in Radiography may progress within the program and be recommended to the American Registry of Radiologic Technologists for certification and eligibility to take the ARRT examination if the following requirements have been met:

1. Minimum grades of "C" in all radiography and related science courses.
2. All students must complete the Radiography Program within four academic years of the date of first official enrollment in the program.

Consideration for Certification

The American Registry of Radiologic Technologists may not issue a certificate to an applicant who has been convicted of:

1. A felony
2. Any offense (misdemeanor or felony) indicating a lack of good moral character

All questions related to items #1 and #2 should be directed to the American Registry of Radiologic Technologists, 1255 Northland Drive, St. Paul, MN 55120-1155, or www.arryt.org prior to Program application.

Sequence of Courses

Courses in the Radiography Program are listed in sequential order. Some courses are required prior to taking other courses. In those cases where a non-radiography course (course with prefix other than RAD) is listed in a given sequence, it must be taken with or prior to the Radiography course(s) listed in the same sequence. All RAD and BIO and MAT courses must be completed with a minimum grade of "C". **IMPORTANT NOTE:** The Radiography Program is a year-round, continuous program consisting of five sequential semesters. Students are admitted to the Program for the fall each year.

SEMESTER 1 Prior to Admission to the Radiography Program

| | | |
|----------|-------------------------------|---|
| BIO 131* | Human Anatomy & Physiology I | 4 |
| BIO 132* | Human Anatomy & Physiology II | 4 |

SEMESTER 2 (FALL)

| | | |
|----------------------------|--|---|
| RAD 100 | Introduction to Radiography and Patient Care | 3 |
| RAD 102 | Radiographic Exposure and Tech I | 3 |
| RAD 104 | Clinical Education I | 3 |
| RAD 111 | Radiographic Procedures I | 3 |
| MAT 100, MAT 106 or higher | | 3 |

SEMESTER 3 (SPRING)

| | | |
|---------|-------------------------------------|---|
| ENG 101 | English Composition I | 3 |
| RAD 103 | Radiographic Protection and Biology | 2 |
| RAD 112 | Radiographic Exposure and Tech II | 3 |
| RAD 114 | Clinical Education II | 3 |
| RAD 121 | Radiographic Procedures II | 3 |

SEMESTER 4 (SUMMER)

| | | |
|-------------------------------|------------------------|---|
| ENG 102 or ENG 115 or ENG 117 | | 3 |
| RAD 124 | Clinical Education III | 4 |

SEMESTER 5 (FALL)

| | | |
|-------------|-----------------------------|---|
| RAD 105 | Radiation Physics | 3 |
| RAD 214 | Clinical Education IV | 4 |
| RAD 221 | Radiographic Procedures III | 3 |
| SPC 110/111 | Introduction to Speech | 3 |

SEMESTER 6 (SPRING)

| | | |
|----------|------------------------------------|---|
| Elective | Core Goal 6: Intellectual Heritage | 3 |
| PSY 101 | Introduction to Psychology | 3 |
| RAD 224 | Clinical Education V | 4 |
| RAD 230 | Radiographic Pathology | 2 |
| RAD 250 | Professional Issues in Radiography | 1 |

TOTAL PROGRAM HOURS: 70 CREDITS

* Courses must be completed in advance of admissions to the Radiography Program.

SURGICAL TECHNOLOGY (A.A.S.)

Purpose

The Surgical Technology AAS Program is designed to prepare graduates who function as a healthcare team member under the supervision of registered professional nurses or licensed physicians. Students learn to prepare the operating room, instruments, equipment and the patient for surgical intervention as well as acquire surgical technology operating room skills essential to maintain optimal sterile technique. The Program integrates theory, laboratory simulations and clinical experiences to guide students in achieving surgical technology competence. Surgical Technology students are competitive within the job market through completion of the national certifying examination administered by The National Board of Surgical Technology and Surgical Assisting (NBSTSA) prior to graduation. Graduates seek employment in hospital operating rooms, physician office procedure rooms, freestanding ambulatory units, delivery rooms, sterile processing areas, and acute critical care facilities. Many surgical technologists are directly employed by surgeons and may choose to specialize in certain types of surgery. Others become sales representatives for companies and manufacturers of surgical equipment and supplies. The Surgical Technology Program is fully accredited by The Commission on Accreditation of Allied Health Education Programs (CAAHEP). Additional information regarding CAAHEP can be obtained by contacting the organization directly at 1361 Park Street, Clearwater, FL 33756, telephone 727-210-2350, www.caahep.org.

Program Mission

The mission of the Surgical Technology Program is congruent with the Mission and Philosophy statement of Montgomery County Community College. The Surgical Technology program is a four-semester, continuous program designed to prepare a competent entry-level surgical technologist in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Program Goals

The Surgical Technology AAS degree Program prepares competent Surgical Technologists to perform their role within the operative

team, while delivering care to patients from the community in multiple surgical environments including: General and Colorectal, Obstetric/ Gynecologic, ENT, Ophthalmic, Maxillofacial, Cosmetic/Reconstructive Plastic, Neurosurgery, Genitourinary, Thoracic, Cardiac, Vascular, and Orthopedic surgeries.

Program Outcomes

Upon completion of the Program, graduates will be able to:

- Employ appropriate ethical and professional values when providing surgical technology services to diverse populations
- Perform necessary activities to prepare patients for surgery utilizing the principles of aseptic technique, critical thinking, and problem solving in order to adapt to the changing surgical environment
- Demonstrate the ability to prioritize and organize the surgical field, while considering the physiology and urgency of the patient care needs
- Incorporate technical skills to assemble and operate instruments, equipment, and supplies for the delivery of patient care during all specialties of surgery
- Purchase student liability insurance annually
- Integrate knowledge from the required courses within this program to the role of the surgical technologist in caring for diverse clients
- Communicate clearly and effectively utilizing the most current research tools
- Express a commitment to lifelong learning and continued professional development
- Meet the minimum eligibility requirements for the national certifying examination administered by the NBSTSA.

Admissions Guidelines

Students who wish to be considered for admission to the Surgical Technology AAS Program must present credentials in accordance with the following requirements:

1. Submit a completed College application identifying Surgical Technology AAS (SR.GS) as the major.
2. Submit high school transcript or GED scores. Applicants must have completed at least one year of biology and chemistry, and two years of mathematics including one unit of algebra or equivalent. Applicants without high school biology and/ or chemistry can satisfy this requirement by completing the College's BIO 121 or CHE 121 courses with grades of "C" or better. Both the Biology and Chemistry courses must be successfully completed within the past 10 years prior to enrolling in SUR courses.
3. Submit official college transcript(s), for credit evaluation, if applicable.
4. Complete the College placement tests in English, Mathematics, and Reading and place above the developmental level prior to enrolling in SUR courses.
5. Submit a SUR Petition for Admission.

The Surgical Technology AAS Program accepts students each academic year, in the Fall semester. Due to class limitations, the College does not guarantee continuous enrollment between non-SUR and SUR courses. All students must complete the Surgical Technology AAS Program within four academic years of the date of initial enrollment in the program.

Eligibility for readmission and/or transfer to the Surgical Technology AAS Program is based upon space availability as well as meeting specified requirements. Additional information is available on the College website or upon request from the Surgical Technology Program Coordinator.

Program Requirements

Once accepted into the A.A.S. Degree Program, students are required to:

1. Purchase all required textbooks, manuals, supplemental supplies, uniforms, and liability insurance.
2. Assume all responsibility for transportation to and from extramural assignments including clinical experiences.
3. Obtain and maintain current CPR certification in the American Heart Association's CPR for the Healthcare Provider.
4. Have a comprehensive physical examination, which includes documentation of selected vaccinations and a 10 panel urine drug screen, within six months of Program matriculation and annually thereafter.
5. Submit documentation of an Annual Influenza Vaccination.
6. Submit application for Child Abuse History Clearance, FBI Clearance, and PA Criminal Record Check. Note: a Child Abuse History will and a Criminal Record and/or FBI Record may exclude the student from participating in the Program.
7. Attend a mandatory Surgical Technology Program Orientation.
8. Complete the Certified Surgical Technologist (CST) examination during the final semester of the program (approx. \$300 for non AST member; \$200 for AST member).

Sequence of Courses

All BIO and SUR courses must be taken and successfully completed (grade "C" or better) in the sequence listed. Each semester provides the building block for the following semester; therefore, each course in a given semester serves as a co-requisite for all other courses in that same semester. Concurrently, each semester serves as the prerequisite for continuing into the next semester.

IMPORTANT NOTE: The Surgical Technology Program is a year-round, 16-month continuous program consisting of four sequential semesters. Students are admitted to the Program in the fall each year.

FIRST SEMESTER

| | | |
|----------|--|-------------------|
| BIO 131 | Anatomy & Physiology I | 4 |
| BIO 140 | Microbiology & Immunology. | 4 |
| Elective | Core Goal 10: Exercise and Health Sciences | 2 |
| SUR 105 | Surgical Technology I | 7 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|---------|-----------------------------------|-------------------|
| ENG 101 | English Composition | 3 |
| BIO 132 | Anatomy & Physiology II | 4 |
| SUR 106 | Surgical Technology II | 8 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|----------------------------------|--|-------------------|
| ENG 102 or ENG 115 or ENG 117 .. | | 3 |
| SPC 110 | Introduction to Speech Communication | 3 |
| SUR 205 | Surgical Technology III | 10 |
| | | (16 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 9: Behavioral and Social Sciences | 3 |
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| SOC 244 | Sociology of Death and Dying | 3 |
| SUR 206 | Surgical Technology IV. | 7 |
| | | (16 Credit Hours) |

TOTAL SEMESTER CREDIT HOURS: 64

NON-CREDIT HEALTH CAREER PROGRAMS

CLINICAL RESEARCH COORDINATOR

Purpose

This course is designed for the medical or allied health professional considering a career or a change into the dynamic world of clinical research, in the medical office or hospital setting. It will provide the information necessary for a solid knowledge base to allow the professional to function as an entry level Clinical Research Coordinator.

Primary Goals

After completion of this course, students will be prepared to enter a medical/hospital setting as a Clinical Research Coordinator. The student will be able to develop the basic skills necessary for the management of clinical research trials, use the informed consent process, conduct patient screening, recruitment and enrollment, study follow up, drug/device accountability, adverse event reporting, and source documentation and complete case reports.

Admission Guidelines

Existing healthcare professionals including RNs, LPNs, Allied Health Professionals, with computer skills, organizational skills and the ability to multitask.

Consideration for Certification

Students will receive a certificate of completion from the college.

Articulation

At this time there is no articulation towards a credit degree.

DENTAL HYGIENE LOCAL ANESTHESIA

Purpose

This course is designed to prepare licensed dental hygienists to administer local anesthesia. This course meets the requirements of the Pennsylvania State Board of Dentistry to apply for certification in the administration of local anesthesia in the practice of dental hygiene.

Program Description

Course content includes the mechanism of action, local anesthetic agents, vasoconstrictors, review of essential anatomy, armamentarium, patient evaluation, and local and systemic effects and complications. In addition, participants will perform safe and effective local anesthesia administration techniques on clinical partners under the supervision of qualified faculty.

This course is a hybrid course with six on-line modules that are synchronized with two at home sessions and three on-campus Friday evening sessions for hands-on administration of local anesthesia on student partners.

Primary Goals

To prepare licensed dental hygienists to administer local anesthesia and to become certified in the administration of local anesthesia in the practice of dental hygiene.

Admission Guidelines

Participants must submit a copy of a current dental hygiene licensure, a copy of current certification in BLS/CPR, and proof of liability insurance.

Recognition of Completion

Upon successful completion of this course, students can apply for certification in the administration of local anesthesia in the practice of dental hygiene from the Pennsylvania State Board of Dentistry.

NURSE REACTIVATION AND NURSE REFRESHER

Purpose

These programs are designed for Registered Nurses who hold either an active or inactive/lapsed Pennsylvania Registered Nurse license and wish to refresh their med-surg nursing knowledge and skills. Program completion assists in obtaining reinstatement of an inactive/lapsed Registered Nurse license by the Pennsylvania State Board of Nursing.

Program Description

The Nurse Refresher program is designed for Registered Nurses who have an active Pennsylvania RN license and who wish to refresh their skills. The program consists of two required program components: 60 hours of theory and 40 hours of on-campus clinical laboratory experience. Participants can also opt to complete an 80-hour hands-on, acute care clinical experience in an acute care med-surg unit under the guidance of a clinical mentor.

The Nurse Reactivation Program is approved by the Pennsylvania Board of Nursing for nurses who have an inactive/lapsed Pennsylvania Nurse license. This program consists of three required components: 60 hours of theory; 40 hours of on-campus clinical laboratory experience and 80 hours of hands-on, acute care clinical experience in a med-surg unit under the guidance of a clinical mentor.

Primary Goals

Reinstatement or renewal of Pennsylvania Registered Nurse license.

Admission Guidelines

Nursing Refresher (2 components): An active Pennsylvania Registered Nurse license.

Nursing Refresher (3 components): Submission of PA Child Abuse Clearance, PA Criminal Background Check, and FBI fingerprinting prior to commencement of course; submission of paperwork for physical examination and required drug screening; proof of Nursing Liability Insurance; proof of CPR certification or attendance at Healthcare Providers CPR Re-Certification course prior to commencement of course.

Nursing Reactivation: An inactive/lapsed Pennsylvania Registered Nurse license. Submission of PA Child Abuse Clearance, PA Criminal Background Check, and FBI Fingerprinting prior to commencement of course; submission of paperwork for physical examination and required drug screening; proof of Nursing Liability Insurance; proof of CPR certification or attendance at Healthcare Providers CPR Re-Certification course prior to commencement of course.

Consideration for Industry Certification

Nurse Reactivation Program: Upon satisfactorily completing the standardized comprehensive achievement test, individuals can apply to the Pennsylvania State Board of Nursing for reinstatement or renewal of their Pennsylvania Registered Nurse license.

Recognition of Completion

Nurse Refresher Program: Individuals will receive the required 30 CEUs to fulfill the Pennsylvania State Board of Nursing continuing education requirement. A certificate of program completion will also be awarded by the College.

Nurse Reactivation Program: At program completion, the nurse satisfactorily completes a standardized and comprehensive achievement test and results are submitted for reactivation or renewal of the Registered Nurse license to the Pennsylvania State Board of Nursing. Individuals will receive the required 30 CEUs to fulfill the Pennsylvania State Board of Nursing continuing education requirement. A certificate of program completion will also be awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

PHARMACY TECHNICIAN

Purpose

The skills learned while taking this course prepare the student for the National Pharmacy Technician Certification exam and to obtain entry-level positions in the retail and pharmacy industry.

Primary Goals

Upon completion of this program, the students will be prepared for the Pharmacy Technician Certification exam; able to assist pharmacists at an entry-level in multiple professional settings; able to work in, as well as understand, all aspects of the retail, home infusion, mail order, and institutional care pharmacy industry.

Admission Guidelines

Knowledge of basic math skills, high school graduate or GED equivalent.

Consideration for Certification

Upon successful completion of program, students can take the Pharmacy Technician Certification exam to become a Certified Pharmacy Technician (CPT). A certificate of program completion will be awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) DIVISION

BIOTECHNOLOGY (A.A.S.)

Purpose

The program is designed to prepare students through rigorous study for employment in entry level positions available at biotechnology and pharmaceutical companies, as well as research and quality control laboratories. The areas for career opportunities include but are not limited to basic research in a drug discovery or an academic environment, manufacturing, and clinical development. The program is intended to build upon basic principles of biology and chemistry acquired at the high school and early college level. Graduates are prepared for positions as biotechnology, laboratory or biomanufacturing technicians. With advising, graduates may also transfer into 4 year Biotechnology, Biochemistry or Biomedical programs.

Program Outcomes

A graduate should be able to:

- Demonstrate a theoretical and practical (i.e., hands-on) knowledge of state-of-the-art tools used in biotechnology laboratories, including molecular and cellular biological techniques and use of various laboratory instrumentation.
- Explain the biotechnology process, from identification of a molecule involved in a disease process to the end-stage marketing of a product.
- Design an experiment based on scientific literature that supports the steps of the biopharmaceutical development and manufacture process.
- Utilize effective oral and written communication skills as part of a team or when presenting to a group.
- Evaluate manufacturing practices for compliances with industry standards such as current Good Manufacturing Practices and Good Laboratory Practices.
- Compare and contrast the different operational units that make up a biotechnology company and the career opportunities available within these units.

FIRST SEMESTER

| | | |
|------------|---|----------------------|
| ENG 101 | English Composition I..... | 3 |
| BIT 120 | Introduction to Biotechnology | 4 |
| MAT 100 or | | |
| MAT 161* | Intermediate Algebra or Pre-Calculus I* | 3-4 |
| CHE 131 or | | |
| CHE 151* | Chemistry for Technology I or Principles of Chemistry I* | 4 |
| | | (14-15 credit hours) |

SECOND SEMESTER

| | | |
|------------------------|--|---|
| ENG 115 or ENG 102* | English for Technical Communications or English Composition II* | 3 |
| SPC 120 | Public Speaking | 3 |
| CHE 132 or CHE 152 | Chemistry for Technology II or Principles of Chemistry II* | 4 |
| BIT 123 | Techniques and Instrumentation for Biotechnology ... | 4 |
| BIO 121 or BIO 151* | General Biology I or Principles of Biology I* | 4 |

(18 credit hours)

THIRD SEMESTER

| | | |
|------------------------|---|---|
| Elective | Core Goal 4: Computer Fluency | 3 |
| BIT 220 | Biotechnology Research | 4 |
| MAT 131 | Introduction to Statistics | 3 |
| BIO 140 or BIO 152* | Microbiology and Immunology or Principles of Biology II* | 4 |
| Elective ¹ | Laboratory Science ¹ | 4 |

(18 credit hours)

FOURTH SEMESTER

| | | |
|-----------------------|--|-----|
| BIT 232 | Biomanufacturing | 4 |
| Elective ² | Biotechnology Internship or Laboratory Science | 4-6 |
| ESW Elective | Core Goal 10: Exercise and Health Sciences | 2 |
| HIS 101 | History of Western Civilization I | 3 |

. (13-15 credit hours)

TOTAL SEMESTER CREDIT HOURS: 64-66

*Required to transfer

¹ Choose one of the following 4 credit Laboratory science electives:

- BIO 122 General Biology II
 - BIO 130 Introductory Anatomy and Physiology
 - BIO 131 or BIO 132 Human Anatomy and Physiology I or II
 - BIO 260 Genetics
 - PHY 121 or PHY 122 General Physics I or II
- Students intending to transfer should take CHE 261 Organic Chemistry I

² Students may choose the 6 credit Biotechnology Internship course, or Choose one of the above 4 credit Laboratory science electives. Students intending to transfer should take CHE 262 Organic Chemistry II.

**BIOTECHNOLOGY AND BIOMANUFACTURING
(CERTIFICATE OF COMPLETION)**

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Demonstrate a theoretical and practical (i.e., hands-on) knowledge of state-of-the-art techniques and processes used in biotechnology and biomanufacturing laboratories, including use of various laboratory instrumentation used in research and discovery and biopharmaceutical process development and manufacturing.
- Explain the biotechnology process and design an experiment based on scientific literature that supports the steps of the biopharmaceutical development and manufacture process from identification of a molecule involved in a disease process to the end-stage marketing of a product.

- Evaluate manufacturing practices for compliances with current Good Manufacturing Practices and good Laboratory Practices industry standards.
- Compare and contrast the different operational units that make up a biotechnology company and the career opportunities available within these units.

Curriculum

FIRST SEMESTER

| | | |
|------------|--|---|
| BIT 120 | Introduction to Biotechnology or | |
| or BIO 121 | General Biology I or | |
| or CHE 131 | Chemistry for Technology I | 4 |
| BIT 123 | Techniques and Instrumentation for Biotechnology ... | 4 |

(8 credit hours)

SECOND SEMESTER

| | | |
|---------|------------------------------|---|
| BIT 220 | Biotechnology Research | 4 |
| BIT 232 | Biomanufacturing | 4 |

(8 credit hours)

TOTAL SEMESTER CREDIT HOURS: 16

COMPUTER NETWORKING (A.A.S.)

Network Administration Concentration

Purpose

The Network Administration Concentration of the Computer Networking AAS program prepares graduates with knowledge and skills in networking, computer support, and data communications. Graduates are prepared and eligible to take appropriate certification exams (such as A+, Network+, Microsoft MTA, Security+ and Cisco CCENT /CCNA) and can expect to work as entry-level network engineers, administrators, or computer support technicians. This program requires extensive hands-on work in computer labs featuring state-of-the-art equipment.

Program Outcomes

A graduate should be able to:

- Analyze and solve computer hardware and software problems.
- Apply critical thinking, team building, and problem solving skills to design, implement and maintain a local area network configuration.
- Program and configure Cisco switches and routers.
- Design, implement, and maintain a WAN

Cyber Security Concentration

Purpose

The Cyber Security Concentration of the Computer Networking AAS program prepares graduates with knowledge and skills in computer and network security, ethical hacking, computer forensics, data networking and computer hardware and support. Graduates are prepared and eligible to take appropriate certification exams (such as A+, Network+, Microsoft MTA, Security+, Cisco CCENT, CCNA Security and EC-CEH) and can expect to work as entry-level network security technicians and engineers or computer support technicians. This program requires extensive hands-on work in computer labs featuring state-of-the-art equipment.

Program Outcomes

A graduate should be able to:

- Analyze and solve computer hardware and software problems
- Apply critical thinking, team building, and problem solving skills to design, implement and maintain a local area network configuration.
- Describe the principles and components of cyber security.
- Use computer forensics to investigate cyber-attacks
- Implement Ethical Hacking to assess cyber security postures and vulnerabilities
- Design and Implement Secure Networks

FIRST SEMESTER

| | | |
|---------------|---|-------------------|
| ENG 101 | English Composition I | 3 |
| Math Elective | MAT 100 Intermediate Algebra or Core Goal 3: Quantitative Skills | 3 |
| CIS 113 | PC Maintenance and Support | 3 |
| CIS 155 | PC Applications on Networks | 3 |
| CIS 170 | Introduction to Networks | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|---------------------|--|-------------------|
| ENG 117 or ENG 115 | Writing for Business and Industry or Writing for Technical Communication | 3 |
| CIS 171 | Routing and Switching Essentials | 3 |
| CIS 1101 or CIS 111 | Introduction to Problem Solving and Programming or Introduction to Computer Science ... | 3 |
| CIS 158 | Windows Server Administration and Support | 3 |
| BIO 115 | Environmental Biology | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|-----------------|---|-------------------|
| Speech Elective | Core Goal 1b: Oral Communication Skills | 3 |
| CIS 141 | Introduction to Linux | 3 |
| CIS | Concentration Requirement | 3 |
| CIS | Concentration Requirement | 3 |
| ESW 207 | Food and Culture | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|------------------------|---|-------------------|
| CIS | Concentration Requirement | 3 |
| CIS 257 | Network Planning, Project Management and Implementation | 3 |
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| CIS | Concentration Requirement | 3 |
| Concentration Elective | | 3 |
| | | (15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60

Concentration Requirements

Network Administration

| | | |
|------------------------|---|---|
| CIS 258 | Advanced Windows Server Administration & Support ... | 3 |
| CIS 172 | Scaling Networks | 3 |
| CIS 172B | Connecting Networks | 3 |
| CIS 142 | Linux Administration | 3 |
| Concentration Elective | CIS 245, or CIS 166, or CIS 275, or MGT 111 Database Management Systems/SQL, or Introduction to Cloud Computing, or Fundamentals of Network Security, or Principles of Management | 3 |

Cyber Security

| | | |
|------------------------|--|---|
| CIS 275 | Fundamentals of Network Security | 3 |
| CIS 207 | Introduction to Computer Forensics | 3 |
| CIS 208 | Implementing Network Security | 3 |
| CIS 209 | Ethical Hacking | 3 |
| Concentration Elective | CIS 245, or CIS 166, or CIS 167 Database Management Systems/SQL, or Introduction to Cloud Computing or Introduction to Data Storage | 3 |

CLOUD COMPUTING (CERTIFICATE)

Purpose

This certificate will introduce students to the various components of cloud computing. It will include Computer Networking, Data Storage and Storage Area Networks, Windows Server and Hyper V, Cloud essentials and services. Advanced virtualization technologies to include Citrix and VMware will also be covered. The Certificate will prepare students for careers in the rapidly growing Cloud Computing segment, and also prepare them for higher level specializations in this field. The Certificate will cover the objectives of the following industry certification examinations: Microsoft Windows Server and Hyper-V, CompTIA Cloud Essentials, Storage+ and Cloud+, EMC Proven Professional Information Storage Associate (EMCISA), VMware vSphere, Citrix XEN Desktop and Citrix XEN App, and Cisco Certified Entry Network Technician (CCENT).

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Design and configure local and wide area networks.
- Explain the concepts, components and deployment of cloud computing and provisioning.
- Explain concepts and components of Data Storage and storage design.
- Configure and deploy Microsoft Windows and Linux operating systems.
- Configure and deploy virtualization technologies.
- Develop a plan with strategies to pass the certifying exams.

Curriculum

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| CIS 155 | PC Applications on Networks | 3 |
| CIS 170 | Introduction to Networks | 3 |
| CIS 166 | Introduction to Cloud Computing | 3 |
| CIS 167 | Introduction to Data Storage and Storage Area Networks | 3 |
| CIS 158 | Windows Server Administration and Support | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| CIS 168 | Data Centers and Cloud Storage | 3 |
| CIS 171 | Routing and Switching Essentials | 3 |
| CIS 258 | Advanced Windows Server Administration and Support | 3 |
| CIS 203 | VMware vSphere | 3 |
| | | (12 credit hours) |

THIRD SEMESTER

| | | |
|---------|-------------------------------------|-------------------|
| CIS 141 | Introduction to Linux..... | 3 |
| CIS 204 | Citrix XEN Desktop and XEN App..... | 3 |
| CIS 205 | Windows Server Hyper-V..... | 3 |
| CIS 206 | Cloud Services..... | 3 |
| | | (12 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 39

*The Director of Information Technology Programs can waive CIS 155 if the student has taken CIS 110 or has equivalent knowledge.

COMPUTER NETWORKING (CERTIFICATE)

Purpose

Prepares graduates with knowledge and skills in the areas of networking, computer support and data communications. Graduates are eligible to take appropriate certification exams (such as A+, Network+, Cisco CCENT and Microsoft MTA). Graduates can expect to work as entry-level network engineers, administrators, or computer support technicians (although many employers require an associate's degree). This program involves extensive hands-on work in computer labs featuring state-of-the-art equipment.

Program Outcomes

A graduate should be able to:

- Analyze and solve computer hardware and software problems.
- Apply critical thinking, team building, and problem solving skills to design and implement a local area network configuration.
- Describe OSI layers, their functionality, and maintain a LAN.
- Program and configure Cisco switches.
- Program and configure Cisco routers.
- Design, implement, evaluate and maintain a WAN

FIRST SEMESTER

| | | |
|----------------------------------|--|-------------------|
| CIS 113 | PC Maintenance and Support..... | 3 |
| CIS 170 | Introduction to Networks..... | 3 |
| CIS 158 | Windows Server Administration and Support..... | 3 |
| CIS 155, CIS 1101, or CIS 111 | PC Applications on Networks, Introduction to Problem Solving and Programming, or Introduction to Computer Science..... | 3 |
| | | (12 credit hours) |

SECOND SEMESTER

| | | |
|---------|--|-------------------|
| CIS 141 | Introduction to Linux..... | 3 |
| CIS 171 | Network Routing Fundamentals..... | 3 |
| CIS 258 | Advanced Windows Server Admin & Support..... | 3 |
| CIS 172 | Scaling Networks (cisco Semester 3)..... | 3 |
| | | (12 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|------------------|
| Elective | CIS 142 Linux Administration or CIS 172B Connecting Network Cisco Semester 4..... | 3 |
| CIS 257 | Network Planning, Project Management and Implementation..... | 3 |
| | | (6 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 30

COMPUTER SCIENCE (A.S.)

Purpose

The Computer Science program is designed primarily for those students who plan to transfer to a four-year institution and major in computer science.

Program Outcomes

A graduate should be able to:

- Design solutions to quantitative problems by applying algorithm design.
- Design solutions to quantitative problems using programming support tools.
- Exhibit an ability to communicate effectively in a professional technical environment.
- Demonstrate an understanding of professional, ethical, legal, and security issues for programming professionals.
- Demonstrate knowledge of mathematical principles required for work in computer science.
- Construct program solutions using various data structures and testing techniques complete with supporting documentation and testing plans.
- Construct program solutions that include testing techniques, testing plans, and supporting documentation.

Curriculum

FIRST SEMESTER

| | | |
|----------|-----------------------------------|---|
| ENG 101 | English Composition I..... | 3 |
| Elective | ANT 104, HIS 102, or HIS 205..... | 3 |
| Elective | CIS 110 or CIS 155..... | 3 |

| | | |
|----------|---|-------------------|
| CIS 111 | Computer Science I: Programming and Concepts..... | 3 |
| Elective | BIO 121, CHE 121, or PHY 121 (part 1 of a 2 course series)..... | 4 |
| | | (16 credit hours) |

SECOND SEMESTER

| | | |
|-----------|---|-------------------|
| Elective | ART 101, ART 102, ART 103, MUS 110..... | 3 |
| Elective | BIO 122, CHE 122, or PHY 122 (part 2 of a 2 course series)..... | 4 |
| MAT 125 | Discrete Mathematics..... | 3 |
| CIS 111 B | Computer Science II: Object-Oriented Programming..... | 3 |
| Elective | ENG 221, ENG 222..... | 3 |
| | | (16 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|-------------------|
| Elective | PSY 101, SOC 101..... | 3 |
| MAT 190 | Calculus and Analytic Geometry I..... | 4 |
| CIS 245 | Database Management Systems/SQL..... | 3 |
| CIS 112 | Computer Science III: Data Structures and Algorithms..... | 3 |
| | | (13 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| SPC 120 | Public Speaking..... | 3 |
| Elective | CIS Elective..... | 3 |
| Elective | CIS Elective..... | 3 |
| CIS 126 | Computer Architecture & Organization..... | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 3 |
| | | (15 credit hours) |

TOTAL SEMESTER HOURS CREDIT: 60

Students should confer with their advisor or a counselor before or during the first semester to be certain that the specific electives taken are the best choices for the four year institution(s) of their choice.

CYBER SECURITY (CERTIFICATE)

Purpose

The Cyber Security Certificate prepares graduates with knowledge and skills in computer and network security, ethical hacking, computer forensics, data networking and computer hardware and support. Graduates are eligible and prepared to take appropriate certification exams (such as A+, Network+, Microsoft MTA, Security+, Cisco CCENT, CCNA Security and EC-CEH) and can expect to work as entry-level network security technicians and engineers or computer support technicians. This program requires extensive hands-on work in computer labs featuring state-of-the-art equipment

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Understand the principles and components of cyber security.
- Use computer forensics to investigate cyber-attacks
- Implement Ethical Hacking to assess cyber security postures and vulnerabilities
- Design and Implement Secure Networks
- Design, implement, and maintain a local area network.
- Analyze and solve computer hardware and software problems

FIRST SEMESTER

| | | |
|---------|--|-------------------|
| CIS 113 | PC Maintenance and Support..... | 3 |
| CIS 170 | Introduction to Networks..... | 3 |
| CIS 158 | Windows Server Administration and Support..... | 3 |
| CIS 155 | PC Applications on Networks..... | 3 |
| | | (12 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| CIS 141 | Introduction to Linux..... | 3 |
| CIS 171 | Routing and Switching Essentials..... | 3 |
| CIS 207 | Introduction to Computer Forensics..... | 3 |
| CIS 275 | Network Security Fundamentals..... | 3 |
| | | (12 credit hours) |

THIRD SEMESTER

| | | |
|---------|------------------------------------|------------------|
| CIS 208 | Implementing Network Security..... | 3 |
| CIS 209 | Ethical Hacking..... | 3 |
| | | (6 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 30

ELECTRONIC GAME AND SIMULATION DESIGN (A.A.S.)

Purpose

The Electronic Game and Simulation Design program prepares graduates for employment as entry-level game designers, quality assurance testers or level designers for the electronic game/simulation development industry.

Program Outcomes

A graduate should be able to:

- Plan, develop and produce working prototypes of electronic games/simulations that demonstrate the design elements for the particular game/simulation
- Develop electronic games/simulations using industry standard software tools and game design principles
- Demonstrate professional interpersonal skills and attitudes.
- Work and communicate effectively with others in a team development environment
- Demonstrate the basic knowledge and skills needed to continue the educational process toward more advanced training leading to career advancement.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| ENG 101 | English Composition..... | 3 |
| MAT 161 | Precalculus I..... | 4 |
| CIS 111 | Computer Science I: Programming and Concepts..... | 3 |
| COM 100 | Mass Media & Society..... | 2 |
| COM 160 | Media Literacy Workshop..... | 1 |
| CIS 176 | Game Design Practice and Theory..... | 3 |
| | | (16 credit hours) |

SECOND SEMESTER

| | | |
|----------|--|-------------------|
| COM 101 | Survey of Mass Media Industries in US..... | 2 |
| COM 161 | Media Industries Workshop..... | 1 |
| CIS 111B | Computer Science II: Object Oriented Programming..... | 3 |
| CIS 177 | Introduction to 3D Modeling..... | 3 |
| PHY 121 | General Physics I..... | 4 |
| | | (13 credit hours) |

THIRD SEMESTER

| | | |
|---------|--|-------------------|
| CIS 235 | Object-Oriented Programming in C++ or CIS 112 Data Structures & Algorithms..... | 3 |
| CIS 276 | Game and Simulation Programming Foundations..... | 3 |
| CIS 277 | Game Design Studio..... | 3 |
| THA 105 | Introduction to Acting..... | 3 |
| COM 120 | Introduction to Scriptwriting..... | 2 |
| COM 121 | Introductory Scriptwriting Workshop..... | 1 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|--------------|---|-------------------|
| Elective | Core Goal 10: Exercise and Health Sciences..... | 3 |
| Elective | Core Goal 6: Intellectual Heritage..... | 3 |
| ECO 110 | Elements of Economics or ECO 121 Macroeconomics..... | 3 |
| CIS 278 | Game Production Studio..... | 4 |
| COM Elective | COM 103 or COM 104..... | 2 |
| COM Elective | COM 163 or COM 164..... | 1 |
| | | (16 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60

ENGINEERING SCIENCE (A.S.)

Purpose

The Engineering Science program is a rigorous program of study in freshman/sophomore Engineering designed to prepare students for transfer to four-year schools of Engineering. The curriculum prepares the student for advanced study in a variety of fields such as Electrical, Computer, Mechanical, Civil, Structural, and Architectural Engineering.

Program Outcomes

A graduate should be able to:

- Analyze and interpret fundamental engineering problems
- Apply the scientific method to derive solutions to fundamental engineering problems
- Derive models for solution based on learned methodologies and principles
- Apply computer-based analysis and solution software to engineering situations
- Show evidence of an ability to function effectively on teams
- Show evidence of an ability to communicate effectively.

FIRST SEMESTER

| | | |
|---------|----------------------------------|-------------------|
| ENG 101 | English Composition I..... | 3 |
| EGR 111 | Engineering Computations..... | 3 |
| MAT 190 | Calculus I..... | 4 |
| EGR 102 | Introduction to Engineering..... | 3 |
| PHY 151 | Principles of Physics I..... | 4 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|---------|-------------------------------|-------------------|
| ENG 102 | English Composition II..... | 3 |
| MAT 201 | Calculus II..... | 4 |
| PHY 152 | Principles of Physics II..... | 4 |
| SPC 120 | Public Speaking..... | 3 |
| EGR 115 | Engineering Graphics..... | 3 |
| | | (17 credit hours) |

THIRD SEMESTER

| | | |
|---------------------|--|----------------------|
| MAT 202 | Calculus III..... | 4 |
| CHE 151 | Principles of Chemistry I..... | 4 |
| EGR 211 | Linear Electrical Systems I..... | 4 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2-3 |
| Mechanical Elective | Mechanical Engineering Elective (required only for Mechanical Concentration)..... | 3 |
| | | (14-18 credit hours) |

FOURTH SEMESTER

| | | |
|----------|--|----------------------|
| MAT 223 | Differential Equations..... | 4 |
| HIS 101 | History of Western Civilization I..... | 3 |
| PHI 101 | Fundamentals of Ethics..... | 3 |
| Elective | Mechanical or Electrical..... | 3-4 |
| Elective | Mechanical or Electrical..... | 3-4 |
| | | (16-18 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 66-68

Recommended elective courses of study leading to a concentration in -

Electives for Concentration in Electrical Engineering

- EGR 210 - Digital Systems
- EGR 214 - Linear Electrical Systems II

Electives for Concentration in Mechanical Engineering

- EGR 203 - Engineering Statics
- EGR 204 - Engineering Dynamics
- EGR 213 - Mechanics of Materials

ENGINEERING TECHNOLOGY (A.A.S)

Electrical Concentration

Purpose

The Engineering Technology - Electrical concentration is designed to prepare graduates for career positions as electrical engineering technicians in the advanced technology areas of electric circuits, instrumentation, and communications. The technician fills the role of applications-expert serving under engineers and technologists. A solid foundation in applied mathematics and physical science is necessary to enable the technician to communicate well in an engineering environment.

Program Outcomes

The graduate should be able to:

- Analyze a student-created engineering model using appropriate general calculations.
- Design, model and develop concepts in a 3D solids modeling environment to address the industrial demands of today's technology.
- Apply theoretical attributes of electrical components to systems design.
- Identify and describe component and system-level problems in engineering using state-of-the-art testing equipment.
- Design and present a final project using all of the above engineering skills including good oral communication and technical writing ability.

FIRST SEMESTER

| | | |
|---------|--|-------------------|
| EGT 190 | Principles of Critical Thinking in Technology..... | 3 |
| ENG 101 | English Composition I..... | 3 |
| EGR 115 | Engineering Graphics..... | 3 |
| MAT 161 | Precalculus I..... | 4 |
| PHI 121 | General Physics I..... | 4 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|------------|-------------------------------|-------------------|
| EGR 111 | Engineering Computations..... | 3 |
| MAT 162 | Precalculus II..... | 4 |
| PHY 122 | General Physics II..... | 4 |
| ENG 115 | | |
| or ENG 117 | Writing Elective..... | 3 |
| ESW 245 | Safety and First Aid..... | 3 |
| | | (17 credit hours) |

THIRD SEMESTER

| | | |
|----------|----------------------|-------------------|
| Elective | Electrical..... | 4 |
| Elective | Electrical..... | 4 |
| Elective | Electrical..... | 4 |
| SPC 120 | Public Speaking..... | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|------------|--|-------------------|
| HIS 101 | | |
| or HIS 102 | History of Western Civilization I or II..... | 3 |
| PHI 101 | Fundamentals of Ethics..... | 3 |
| Elective | Mechanical or Electrical..... | 4 |
| Elective | Mechanical or Electrical..... | 4 |
| | | (14 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 63

Electives for Concentration in Electrical Concentration

- EGT 210 - Digital Circuits
- EGT 211 - AC/DC Circuits
- EGT 230 - Analog Circuits
- EGT 235 - Instrumentation and Control Systems
- EGT 240 - Communication Systems

ENGINEERING TECHNOLOGY (A.A.S)

Mechanical Concentration

Purpose

The Engineering Technology - Mechanical concentration is designed to prepare graduates for career positions as mechanical engineering technicians in the advanced technology of mechanical structures and systems. The technician fills the role of applications-expert serving under engineers and technologists. A solid foundation in applied mathematics and physical science is necessary to enable the technician to communicate well in an engineering environment.

Program Outcomes

The graduate should be able to:

- Analyze a student-created engineering model using appropriate general calculations.
- Design, model and develop concepts in a 3D solids modeling environment to address the industrial demands of today's technology.
- Apply theoretical attributes of mechanical components to systems design.
- Identify and describe component and system-level problems in engineering using state-of-the-art testing equipment.
- Design and present a final project using all of the above engineering skills including good oral communication and technical writing ability.

FIRST SEMESTER

| | | |
|---------|--|-------------------|
| EGT 190 | Principles of Critical Thinking in | 3 |
| ENG 101 | English Composition I | 3 |
| EGR 115 | Engineering Graphics | 3 |
| MAT 161 | Precalculus I | 4 |
| PHI 121 | General Physics I | 4 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|------------|--------------------------------|-------------------|
| EGR 111 | Engineering Computations | 3 |
| MAT 162 | Precalculus II | 4 |
| PHY 122 | General Physics II | 4 |
| ENG 115 | | |
| or ENG 117 | Writing Elective | 3 |
| ESW 245 | Safety and First Aid | 3 |
| | | (17 credit hours) |

THIRD SEMESTER

| | | |
|----------|-----------------------|-------------------|
| Elective | Mechanical | 4 |
| Elective | Mechanical | 4 |
| Elective | Mechanical | 4 |
| SPC 120 | Public Speaking | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|------------|---|-------------------|
| HIS 101 | | |
| or HIS 102 | History of Western Civilization I or II | 3 |
| PHI 101 | Fundamentals of Ethics | 3 |
| Elective | Mechanical or Electrical | 4 |
| Elective | Mechanical or Electrical | 4 |
| | | (14 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 63

Electives for Concentration in Mechanical Concentration

- EGT 203 - Applied Statics
- EGT 204 - Applied Dynamics
- EGT 212 - Applied Fluid Dynamics
- EGT 213 - Applied Strength of Materials
- EGT 215 - Applied Thermodynamics

ENGINEERING TECHNOLOGY (A.A.S)

Nanofabrication Concentration

Purpose

The Engineering Technology - Nanofabrication concentration is designed to prepare the graduate for employment as an entry-level nanofabrication technician. It also prepares the graduate for advanced study in nanofabrication techniques. Students learn to produce nanometer-level products as well as collect, process, and analyze data, improve process parameters, and generally assist engineers in research, development and manufacture of the same.

Program Outcomes

The graduate should be able to:

- Analyze a student-created engineering model using appropriate general calculations.
- Design, model and develop concepts in a 3D solids modeling environment to address the industrial demands of today's technology.
- Identify and describe the latest manufacturing technologies and processes encountered in the field of nanometer-level manufacturing.
- Identify and describe component and system-level problems in engineering using state-of-the-art testing equipment.
- Design and present a final project using all of the above engineering skills including good oral communication and technical writing ability.

FIRST SEMESTER

| | | |
|---------|---|-------------------|
| EGT 190 | Principles of Critical Thinking in Technology | 3 |
| ENG 101 | English Composition I | 3 |
| EGR 115 | Engineering Graphics | 3 |
| MAT 161 | Precalculus I | 4 |
| PHI 121 | General Physics I | 4 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|------------|--------------------------------|-------------------|
| EGR 111 | Engineering Computations | 3 |
| MAT 162 | Precalculus II | 4 |
| PHY 122 | General Physics II | 4 |
| ENG 115 | | |
| or ENG 117 | Writing Elective | 3 |
| ESW 245 | Safety and First Aid | 3 |
| | | (17 credit hours) |

THIRD SEMESTER

| | | |
|---------|--|-------------------|
| EGT 230 | Analog Circuits | 4 |
| CHE 150 | Essentials of Chemistry | 4 |
| SPC 120 | Public Speaking | 3 |
| PHI 101 | Fundamentals of Ethics | 3 |
| HIS 101 | Core Goal 6, Core Goal 7 and Core Goal 9 | 3 |
| | | (17 credit hours) |

FOURTH SEMESTER (nanofabrication concentration)*

| | | |
|---------|---|-------------------|
| ESC 211 | Material Safety and Equipment Overview for Nanofabrication | 3 |
| ESC 212 | Nanofabrication Processes..... | 3 |
| ESC 213 | Thin Films in Nanofabrication | 3 |
| ESC 214 | Lithography for Nanofabrication..... | 3 |
| ESC 215 | Materials Modification in Nanofabrication..... | 3 |
| ESC 216 | Characterization, Packaging, and Testing of Nanofabricated Structures | 3 |
| | | (18 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 69

*Courses are taught in Residence at Penn State Center for Nanofabrication Education and Utilization.

ENVIRONMENTAL STUDIES (A.S.)

Purpose

The Environmental Studies A.S. program is designed to prepare students for transfer to a four-year college or university. By integrating a broad spectrum of natural science and social science courses, the curriculum prepares students for advanced study and a variety of careers.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Use established scientific standards and methods to install, calibrate, and manipulate basic laboratory and field equipment.
- Use established scientific standards and methods to collect, analyze, and interpret environmental data.
- Use established scientific standards and methods to hypothesize, communicate, and critique environmental forecasts.
- Analyze the sustainability of systems within an ecosystem.

FIRST SEMESTER

| | | |
|-----------------|---|-------------------|
| BIO 115 | Environmental Biology..... | 3 |
| BIO 121 or 151* | General Biology I or Principles of Biology I..... | 4 |
| CHE 121 or 151* | General Chemistry I or Principles of Chemistry I..... | 4 |
| ENG 101 | English Composition I..... | 3 |
| | | (14 credit hours) |

SECOND SEMESTER

| | | |
|--------------------|---|----------------------|
| BIO 122 or 152* | General Biology II or Principles of Biology II..... | 4 |
| CHE 122 or 152* | General Chemistry II or Principles of Chemistry II..... | 4 |
| ECO 117 or GEO 130 | Environmental Economics or Cultural Geography | 3 |
| Elective** | Open Elective..... | 3 or 4 |
| | | (14-15 credit hours) |

THIRD SEMESTER

| | | |
|----------------|-----------------------------|-------------------|
| BIO 256 | Ecology..... | 4 |
| GLG 115 | Environmental Geology | 4 |
| MAT 170*** | Algebra & Trigonometry..... | 3 |
| SPC 110 or 111 | Speech Communication | 3 |
| Elective | Core Goal 6 & 7 course..... | 3 |
| | | (17 credit hours) |

FOURTH SEMESTER

| | | |
|----------------|---|--------|
| GEO 235 or | | |
| GLG 125 | Sustainable Communities or Climate Change | 3 or 4 |
| GEO 210 or 220 | Intro to GIS or Map Design in GIS..... | 3 |
| ESW 245 | Safety and First Aid | 3 |

| | | |
|----------|----------------------------------|----------------------|
| MAT 131 | Introduction to Statistics | 3 |
| Elective | Open Elective..... | 3 |
| | | (14-15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60-62

*Students planning on transferring to an Environmental Science program should take BIO 151 & 152 and CHE 151 & 152. Speak with a Program Faculty Advisor.

** Students planning on transferring to an Environmental Science program should consider GLG 151. Speak with a Program Faculty Advisor.

*** MAT 161 & 162 are equivalent to MAT 170, but require additional time and credits.

INFORMATION TECHNOLOGY (A.S.)

Purpose

The Information Technology program is designed primarily for those students who plan to transfer to a four-year college or university and major in information technology. This program provides a broad overview of programming, networking, web development and database design.

Program Outcomes

A graduate should be able to:

- Design solutions to quantitative problems by applying algorithm design using programming support tools
- Exhibit an ability to communicate effectively in a professional technical environment
- Examine professional, ethical, legal, and security issues for programming professionals
- Create Web sites that incorporate the fundamental principles of visual design
- Describe the Open Systems Interconnection Reference Model (OSI) layers and their functionality
- Design and utilize databases.

Curriculum

FIRST SEMESTER

| | | |
|--|--|-------------------|
| ENG 101 | English Composition I..... | 3 |
| Elective | Core Goal 6: Intellectual Heritage..... | 3 |
| Elective | Core Goal 3: Quantitative Skills..... | 3 |
| CIS 111* | Comp Sci I: Programming and Concepts..... | 3 |
| ACC 111, MGT 110 or Accounting Principles I, | Introduction to Business MGT 111 or Principles of Management | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|----------|--|-------------------|
| Elective | ACC, ECO, MGT, or MKT | 3 |
| Elective | Core Goal 1b: Oral Communication Skills | 3 |
| Elective | Mathematics..... | 3 |
| CIS 111B | Computer Sci II: Object-Oriented Programming | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences | 2 |
| | | (14 credit hours) |

THIRD SEMESTER

| | | |
|----------|--|-------------------|
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts..... | 3 |
| CIS 114 | Web Design and Development | 3 |
| Elective | Core Goal 8: Physical and Life Sciences | 3 |
| CIS 170 | Introduction to Networks..... | 3 |
| Elective | Core Goal 11: Civic Responsibility | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|----------------|---|-------------------|
| Elective | Core Goal 12: Global Perspective..... | 3 |
| Elective | Elective | 3 |
| Elective | Elective | 3 |
| Elective | Computer and Information Systems ¹ | 3 |
| CIS 244 or 245 | PC Database Management Systems or Database Management Systems/SQ | 3 |
| | | (15 credit hours) |

¹ Recommended CIS Electives include CIS 112, CIS 155, CIS 141, CIS 151, CIS 245 or CIS 241

*ACC 111 Accounting Principles or ACC 115 Financial Accounting may be substituted for this program

TOTAL SEMESTER HOURS CREDIT: 60

LIFE SCIENCES (A.S.)

Purpose

The Life Sciences (AS) program is designed to prepare students for transfer to a variety of programs at a four-year college or university. The curriculum prepares the student for future study in a variety of fields on the Traditional Life Science Concentration, such as general biology, microbiology, organismal biology, molecular biology, biochemistry, neuroscience, environmental science, agriculture, biology education, etc., and on the Biomedical Science Concentration such as cytotechnology, medical laboratory science, nuclear medicine, physical therapy, occupational therapy, etc.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Explain basic biological and chemical concepts.
- Evaluate issues in the life sciences that are of importance to organisms and/or the biosphere.
- Apply the scientific method to a range of life sciences.
- Utilize appropriate scientific techniques and technology for experimentation and data collection.
- Collect, analyze, and report scientific data in an ethical manner.

Curriculum

Traditional Life Science Concentration

FIRST SEMESTER

| | | |
|----------|---|-------------------|
| ENG 101 | English Composition I..... | 3 |
| MAT 131 | Intro to Statistics I | 3 |
| CHE 151 | Principles of Chemistry I..... | 4 |
| BIO 151 | Principles of Biology I..... | 4 |
| Elective | Core Goal 9: Behavioral and Social Sciences, Core Goal 12: Global Perspectives, and Core Goal 13: Ethical Reasoning | 3 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|------------|--|-------------------|
| ENG 102 | | |
| or ENG 115 | English Composition II or Writing for Technical Communication | 3 |
| MAT 190 | Calculus and Analytic Geometry I | 4 |
| CHE 152 | Principles of Chemistry II..... | 4 |
| BIO 152 | Principles of Biology II..... | 4 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|----------------------|
| SPC 120 | Public Speaking | 3 |
| Elective | Biology Lab Science (BIO 131, 140, 256, or 260)..... | 4 |
| Elective | Lab Science (CHE 261, PHY 151, GLG 151, or BIT) | 4 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2-3 |
| | | (16-17 credit hours) |

FOURTH SEMESTER

| | | |
|----------|--|----------------------|
| Elective | Biology Lab Science (BIO 131, 132, 140, 256, or 260) | 4 |
| Elective | Lab Science (CHE 261,262,PHY 151,152,GLG 151, or BIT)..... | 4 |
| Elective | General Elective or Science Elective | 3-4 |
| Elective | Core Goal 6: Intellectual Heritage, and Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| | | (14-15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 62-64

Biomedical Science Concentration

FIRST SEMESTER

| | | |
|------------|---|-------------------|
| ENG 101 | English Composition I..... | 3 |
| MAT 131 | Intro to Statistics I | 3 |
| CHE 151 | | |
| or CHE 121 | Principles of Chemistry I or General Chemistry Inorganic | 4 |
| BIO 151 | | |
| or BIO 121 | Principles of Biology I or General Biology I | 4 |
| Elective | Core Goal 9: Behavioral and Social Sciences, Core Goal 12: Global Perspectives, and Core Goal 13: Ethical Reasoning and Behavior..... | 3 |
| | | (17 credit hours) |

SECOND SEMESTER

| | | |
|------------|--|-------------------|
| ENG 102 | | |
| or ENG 115 | English Composition II or Writing for Technical Communication | 3 |
| BIO 140 | Microbiology and Immunology | 4 |
| CHE 152 | | |
| or CHE 122 | Principles of Chemistry II or General Chemistry II..... | 4 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| | | (14 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|----------------------|
| BIO 131 | Anatomy and Physiology I | 4 |
| SPC 120 | Public Speaking | 3 |
| Elective | Lab Science (CHE 261, PHY 151, BIO 152, or BIT) | 4 |
| Elective | General Elective or Science Elective | 3-4 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2-3 |
| | | (16-18 credit hours) |

FOURTH SEMESTER

| | | |
|----------|--|----------------------|
| BIO 132 | Anatomy and Physiology II | 4 |
| Elective | General Elective or Science Elective | 3-4 |
| Elective | General Elective or Science Elective | 3-4 |
| Elective | Core Goal 6: Intellectual Heritage, and Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| | | (13-15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60-64

MATHEMATICS (A.A.)

Purpose

The Mathematics Program is designed to meet the transfer requirements of four-year colleges and universities for the many disciplines that require a strong Mathematics background. These disciplines include: Computer and Information Science; Business and Economics; Science and Engineering; Statistics, Actuarial Science and Operations Research; Mathematics and Education; Medicine and Law.

Program Outcomes

Upon successful completion of the program, the graduate will be able to:

- Differentiate algebraic and trigonometric functions
- Integrate exponential, logarithmic, inverse trigonometric and hyperbolic functions
- Differentiate vector valued functions
- Use mathematical modeling
- Find a matrix P that will orthogonally diagonalize a symmetric matrix A (MAT 220); or
- Solve a nonhomogeneous linear differential equation by the method of variation of parameters (MAT 223).

FIRST SEMESTER

| | | |
|----------|---|---|
| ENG 101 | English Composition I | 3 |
| Elective | ANT 104, ECO 121, ECO 122, HIS 101, HIS 102, HIS 203, HIS 204, POL 124, PSY 101, SOC 101 or SOC 103 | 3 |
| Mat 190 | Calculus I..... | 4 |
| SPC 120 | Public Speaking | 3 |
| CIS 111 | Computer Science I | 3 |
| | (16 credit hours) | |

SECOND SEMESTER

| | | |
|-----------|---|---|
| ENG 102 | English Composition II..... | 3 |
| Elective* | Elective | 3 |
| MAT 201 | Calculus II | 4 |
| MAT 211 | Foundations of Mathematical Proof..... | 3 |
| Elective | MUS 110, ART 101, ART 102, ART 103, ART 111, ART 121, ENG 221 or ENG 222 | 3 |
| | (16 credit hours) | |

THIRD SEMESTER

| | | |
|-----------|---|---|
| Elective* | Elective | 3 |
| PHY 151 | Principles of Physics I | 4 |
| MAT 202 | Calculus III..... | 4 |
| Elective | MUS 110, ART 101, ART 102, ART 103, ART 111, ART 121, ENG 221 or ENG 222 | 3 |
| | (14 credit hours) | |

FOURTH SEMESTER

| | | |
|------------|--|-----|
| Elective* | Elective | 3 |
| HIS 102 | History of Western Civ | |
| OR HIS 205 | History of U.S..... | 3 |
| MAT 220 | Linear Algebra | |
| OR MAT 223 | Differential Equations | 4 |
| Elective* | ⁴ Elective | 3/4 |
| Elective* | ³ Core Goal 10: Exercise and Health Sciences..... | 2/3 |
| | (15-17 credit hours) | |

1 A minimum of 16 credits in Mathematics must be completed with a grade of "C" or better. MAT 190, MAT 201, MAT 202, MAT 211 and either MAT 220 or MAT 223 are required. A student who must take both MAT 161 and MAT 162 to meet the course prerequisites for MAT 190 may need one additional summer session to complete an A.A. degree in Mathematics.

3 The Exercise Science and Wellness requirement may be taken in any semester.

4 If a student has taken MAT 190, MAT 201, MAT 202 and MAT 220 and wishes an additional mathematics course, MAT 223 or PHY 152 is recommended.

*Students should check with their advisor to determine electives.

TOTAL SEMESTER CREDIT HOURS: 61-63

PHYSICAL SCIENCES (A.S.)

Purpose

The Physical Sciences program provides a strong mathematics and science background for transfer to a four-year college or university. The curriculum prepares students for study leading to a bachelor's degree in a variety of fields, including chemistry, geology, and physics. It is also a first step toward a graduate degree in medical sciences.

Program Outcomes

A graduate should be able to:

- Prepare for and conduct scientific experiments
- Use and understand basic instrumentation
- Analyze and interpret scientific data
- Demonstrate an extensive problem-solving capability.

FIRST SEMESTER

| | | |
|----------|--|---|
| ENG 101 | English Composition I | 3 |
| MAT 190 | ¹ Calculus I | 4 |
| CHE 151 | Principles of Chemistry I or | |
| PHY 151 | ¹ Principles of Physics I | 4 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| | (14 credit hours) | |

SECOND SEMESTER

| | | |
|----------|--|---|
| ENG 102 | English Composition II | 3 |
| MAT 201 | ² Calculus II | 4 |
| CHE 152 | Principles of Chemistry II or | |
| PHY 152 | ² Principles of Physics II | 4 |
| Elective | Core Goal 13: Ethical Reasoning and Behavior | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences | 2 |
| | (16 credit hours) | |

THIRD SEMESTER

| | | |
|----------|---|---|
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| Elective | Core Goal 6: Intellectual Heritage and | |
| | Core Goal 9: Behavioral and Social Sciences | 3 |
| MAT 202 | Calculus III | 4 |
| CHE 261 | ⁴ Organic Chemistry I or | 4 |
| PHY 153 | Modern Physics | 3 |
| Elective | ⁴ Free Elective | 4 |
| | (18 credit hours) | |

FOURTH SEMESTER

| | | |
|----------|--|---|
| Elective | Core Goal 11: Civic Responsibility and | |
| | Core Goal 12: Global Perspectives and Diversity | 3 |
| Elective | Core Goal 1b: Oral Communication Skills..... | 3 |
| MAT 220 | Linear Algebra or | |
| MAT 223 | Differential Equations | 4 |
| CHE 262 | ³ Organic Chemistry II or Lab Science | 4 |
| | (14 credit hours) | |

1 MAT 190 is a corequisite for PHY 151.

2 MAT 201 is a corequisite for PHY 152.

3 Chemistry majors should take PHY 151 and PHY 152 as well as CHE 151, CHE 152, CHE 261, AND CHE 262. A Physics major should take CHE 151 and CHE 152 as well as PHY 151, PHY 152, PHY 153. Other suggested but not required electives can come from the following areas: biology, geology, or computer science.

*MAT 161 and MAT 162 should be considered by students needing a more comprehensive preparation for MAT 190, or the sequence MAT 188, MAT 189.

TOTAL SEMESTER CREDIT HOURS: 6

SOFTWARE ENGINEERING (CERTIFICATE)

Purpose

The Software Engineering Certificate is designed to prepare the graduate for employment as an entry-level computer programmer/software engineer, or to prepare the already experienced graduate to change her/his career direction.

Program Outcomes

- Demonstrate the skills necessary to be employed as a computer programmer/software engineer
- Demonstrate the knowledge and skills needed for further education and career advancement
- Provide the technical core which can be applied to the Associate in Applied Science degree in Computer Systems - Software Engineering Option.

| | | |
|----------|--|---|
| CIS 111 | Computer Science I: Programming & Concepts..... | 3 |
| CIS 111B | Comp. Sci. II: Object-Oriented Programming | 3 |
| CIS 235 | Object Oriented Programming in C++ | 3 |
| CIS 114 | Web Design and Development..... | 3 |
| CIS 126 | Computer Architecture & Organization | 3 |
| CIS 122 | Visual Basic | 3 |
| Elective | CIS | 3 |
| CIS 151 | Systems Analysis and Design | 3 |
| CIS 112 | Comp. Sci. III: Data Structures & Algorithms | 3 |
| Elective | CIS | 3 |

TOTAL SEMESTER CREDIT HOURS: 30

WEB DESIGN & DEVELOPMENT (A.A.S.)

Design Concentration

Purpose

The Web Design and Development AAS program Design Concentration prepares graduates for employment as entry-level Web site designers, information architects, and user experience designers.

Concentration Outcomes

A graduate should be able to:

- Design and develop interactive and standards-compliant Web sites that demonstrate modern Web development and visual design techniques
- Create Web sites that incorporate the fundamental principles of visual design
- Plan and manage the administrative and business processes for software development
- Display the foundation skills and professional practices necessary to succeed and grow in the Web design and development field

- Evaluate end-user needs and develop Web sites that adhere to usability and accessibility guidelines
- Evaluate end-user needs and develop Web sites that adhere to usability and accessibility guidelines
- Demonstrate the ability to work and communicate effectively with others in a team development environment.

Development Concentration

Purpose

The Web Design and Development Certificate program Development Concentration prepares graduates for employment as entry-level Web programmers and developers.

Concentration Outcomes

- Design and develop secure, scalable, and standards-compliant Web sites that demonstrate modern Web development and software engineering techniques
- Design and utilize databases to develop interactive Web sites and applications
- Demonstrate the fundamental principles of system administration
- Plan and manage the administrative business processes for software development
- Display the foundational skills and professional practices necessary to succeed and grow in the Web design and development field
- Evaluate end-user needs and develop Web sites that adhere to usability and accessibility guidelines
- Demonstrate the ability to work and communicate effectively with others in a team development environment.

FIRST SEMESTER

| | | |
|----------|--|-------------------|
| ENG 101 | English Composition I | 3 |
| Elective | 1Mathematics..... | 3 |
| CIS 111 | Computer Science I: Programming & Concepts | 3 |
| CIS 114 | Web Design & Development | 3 |
| ART/CIS | Concentration Requirement 1 | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|-------------|---|-------------------|
| ENG 117 | Writing for Business and Industry | |
| or ENG 115 | Writing for Technical Communication | 3 |
| CIS 111B | Comp. Sci. II: Object Oriented Programming | 3 |
| Elective | Core Goal 9: Behavioral and Social Sciences and Core Goal 12:Global Perspectives and Diversity. | 3 |
| ART/CIS | Concentration Requirement II | 3 |
| ART/CIS 148 | Computer Graphics I | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|---------|-------------------------------------|-------------------|
| SPC 120 | Public Speaking | 3 |
| MGT 111 | Principles of Management | 3 |
| CIS 140 | Client-Side Web Development | 3 |
| ART/CIS | Concentration Requirement III | 3 |
| ART/CIS | Concentration Requirement IV | 3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| Elective | Core Goal 8: Physical and Life Sciences | 4 |
| Elective | Core Goal 10: Exercise and Health Sciences..... | 2 |
| MGT 231 | Project Management | 3 |
| Elective | Core Goal 6: Intellectual Heritage and Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| ART/CIS | Concentration Requirement V..... | 3 |
| | | (15 credit hours) |

1 Any course approved to meet the Core Goal 3: Quantitative Skills.
Students taking MAT 100 and CIS 111 will also satisfy this goal.

TOTAL SEMESTER CREDIT HOURS: 60

WEB DESIGN & DEVELOPMENT (CERTIFICATE)

Design Concentration

Purpose

The Web Design and Development Certificate program Design Concentration prepares graduates for employment as entry-level Web site designers, information architects, and user experience designers.

Concentration Outcomes

- Design and develop interactive standards-compliant Web sites that demonstrate modern Web development and visual design techniques.
- Create Web sites that incorporate the fundamental principles of visual design
- Plan and manage the administrative and business processes for software development
- Display the foundation skills and professional practices necessary to succeed and grow in the Web design and development field
- Evaluate end-user needs and develop Web sites that adhere to usability and accessibility guidelines
- Demonstrate the ability to work and communicate effectively with others in a team development environment.

Development Concentration

Purpose

The Web Design and Development Certificate program Development Concentration prepares graduates for employment as entry-level Web programmers and developers.

Concentration Outcomes

- Design and develop secure, scalable, and standards-compliant Web sites that demonstrate modern Web development and software engineering techniques
- Design and utilize databases to develop interactive Web sites and applications
- Demonstrate the fundamental principles of system administration
- Plan and manage the administrative business processes for software development
- Display the foundational skills and professional practices necessary to succeed and grow in the Web design and development field
- Evaluate end-user needs and develop Web sites that adhere to usability and accessibility guidelines
- Demonstrate the ability to work and communicate effectively with others in a team development environment.

| | | |
|----------|---|---|
| CIS 114 | Web Design & Development | 3 |
| CIS 111 | Computer Sci. I: Programming Concepts | 3 |
| ART/CIS | Concentration Requirement I | 3 |
| CIS 1118 | Computer Sci. II: Object-Oriented Programming | 3 |
| ART 148 | Computer Graphics I | 3 |
| ART/CIS | Concentration Requirement II | 3 |
| CIS 140 | Client-Side Web Development | 3 |
| ART/CIS | Concentration Requirement III | 3 |
| ART/CIS | Concentration Requirement IV | 3 |
| ART/CIS | Concentration Requirement V | 3 |

TOTAL SEMESTER CREDIT HOURS: 30

Concentration Requirements

Development Concentration

| | | |
|------------|--|---|
| CIS 155 | PC Applications for Networks | 3 |
| CIS 141 | Introduction to Linux or | |
| or CIS 158 | Windows Server Admin and Support | 3 |
| CIS 151 | Systems Analysis & Design | 3 |
| CIS 245 | Database Management Systems/SOL..... | 3 |
| CIS 241 | Server-Side Web Development | 3 |

Design Concentration

| | | |
|---------|---|---|
| ART 130 | Two Dimensional Design | 3 |
| ART 135 | Typography | 3 |
| ART 138 | Digital Art I | 3 |
| ART 149 | Computer Graphics: Page Layout & Design | 3 |
| ART 233 | Visual Design for the Internet | 3 |

SPECIALTY CERTIFICATE

The Specialty Certificate is designed for experienced students who wish to gain an in-depth expertise in a specific field by pursuing an individually designed intense course of study of at least 18 credits.

To qualify for this program you must have completed at least 30 credits of approved collegiate study in a discipline other than the one for which the Specialty Certificate is sought. In consultation with the appropriate Discipline Coordinator or Director a minimum 18 credit sequence of courses to be taken at Montgomery County Community College will be designed. Final approval of your Specialty Certificate program and review of qualifying collegiate transcripts will be made by the Business and Entrepreneurial Initiatives Division Dean.

A certificate can be obtained in the following areas of study:

- Computer Information Systems
- Computer Networking
- Game Design
- Software Engineering
- Web Design/Development

NON-CREDIT COURSES

COMPUTER TRAINING PROGRAMS

The computer training programs serve working professionals and students requiring industry certification, professional short term career training, and continuing education credits. We offer the following programs that provide preparation for industry certifications.

A+

Purpose

The A+ course is designed for students seeking career-oriented, entry-level hardware and software skills. Target students include those who want to prepare for careers in information and communication technology (ICT) and students who want to gain skills and working knowledge of how computers work, how to assemble computers, and how to troubleshoot hardware and software issues.

Primary Goals

The course covers the fundamentals of computer technology, networking, and security, and validates the communication skills and professionalism required of all entry-level IT professionals. Students will learn through hands-on scenarios in which troubleshooting and tools must be applied to resolve problems. This course covers the fundamentals of computer hardware and software as well as advanced concepts.

Admission Guidelines

There are no prerequisites for this course.

Consideration for Certification

The A+ course helps students prepare for the CompTIA 220-801 and 220-802 certification exams that lead to the A+ certification.

Articulation

Students who have successfully obtained the A+ certification and who enroll in Montgomery County Community College PC Maintenance and Support may be eligible for up to 3 credits towards the completion of the Computer Networking Certificate program.

ADOBE INDESIGN CS6

Purpose

The Adobe InDesign course is designed for students seeking a career in Desktop Publishing. Target students include those who want to prepare for careers in desktop design, computer graphics and multi-media.

Primary Goals

This short, 12 hour program covers the fundamentals of using InDesign software to teach students how to design and create vibrant newsletters, advertisements, and publications. The program covers familiarization with the advanced tools available in InDesign and using them to create and edit typographic for use in publications. This will help students that are looking at careers in Desktop Publishing or existing professionals that want to upgrade their skill sets.

Admission Guidelines

There are no prerequisites for this course.

Consideration for Certification

A certificate of program completion will be awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

ADOBE PHOTOSHOP CS6

Purpose

The Adobe Photoshop course is designed for students seeking a career in Digital Design. Target students include those who want to prepare for careers in computer graphics and multi-media.

Primary Goals

The program covers the fundamentals of using Adobe Photoshop CS6 software to teach students how to manipulate images that they have created or scanned. The program covers familiarization with the advanced tools available in Photoshop and using them to design, create and edit images. This will help students that are looking at careers in Digital Design or existing professionals that want to upgrade their skill sets. At the conclusion of the course, the student will be able to calibrate his/her system, understand resolution, import and export images and edit using colors, layers, masks, filters, and resizing.

Admission Guidelines

There are no prerequisites for this course.

Consideration for Certification

A certificate of program completion will be awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

AUTOCAD

Purpose

This program provides some of the basic two-dimensional AutoCAD commands and concepts and a more in-depth look into advancing the student to become a more seasoned and proficient CAD operator.

Primary Goals

These programs are for individuals who wish to learn basic 2-D AutoCAD® commands and concepts, from drafting board to high-tech design, and for those seeking advanced skills in AutoCAD. This will assist them in advancing their employment opportunities by learning a skill set that is desirable by employers.

Admission Guidelines

There are no prerequisites for this course.

Consideration for Certification

A certificate of program completion will be awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

CISCO CERTIFIED NETWORKING ASSOCIATE (CCNA)

Purpose

The Cisco Certified Networking Associate (CCNA) curriculum is designed for students who are seeking entry-level information and communication technology (ICT) skills. CCNA provides an integrated and comprehensive coverage of networking topics, from fundamentals to advanced applications and services, while providing opportunities for hands-on practical experience and soft-skills development.

Primary Goals

This program provides students with the skills needed to succeed in networking-related degree programs and helps them prepare for CCNA certification. It also helps students develop the skills necessary to fulfill the job responsibilities of network technicians, network administrators, and network engineers. It provides a theoretically-rich, hands-on introduction to networking and the Internet. The course covers topics such as router and switch configuration, IP addressing, network security and wireless.

Admission Guidelines

There are no pre-requisites for the course.

Consideration for Certification and Articulation

The program leads to the Cisco 200-120 CCNA and 100-101 CCENT industry certifications and also articulates to the CIS 170, 171, 172, and 172B courses.

Articulation

Students who have successfully obtained the CCNA certification and who enroll in the Montgomery County Community College Network Administration concentration of the Networking AAS program may be eligible for up to 12 credits towards the completion of the Networking AAS program.

CCNA SECURITY

Purpose

The Cisco Certified Network Associate Security curriculum is designed for students who are seeking the knowledge and skills needed to prepare for entry-level careers in Network Security. This is a hands-on program that emphasizes practical experience. CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations available to secure small to medium sized networks. CCNA Security helps prepare students for the Implementing Cisco IOS Network Security (IINS) certification exam (640-554) leading to the Cisco CCNA Security certification.

Primary Goals

This program provides students with the skills needed to succeed in network security related degree programs and helps them prepare for IINS certification. The program is a hands-on, career-oriented e-learning solution with an emphasis on practical experience to help students develop specialized security skills, along with critical thinking and complex problem solving.

Admission Guidelines

The student should preferably have CCENT level routing and switching knowledge.

Consideration for Certification

This program leads to the 640-554 IINS Implementing Cisco IOS Network Security certification exam this is associated with the CCNA Security certification.

Articulation

Students who have successfully obtained the Cisco Security certification and who enroll in the Montgomery County Community College Network Administration concentration of the Networking AAS program may be eligible for up to 8 credits towards the completion of the Networking AAS program.

CCNA VOICE

Purpose

The Cisco Certified Network Associate Voice curriculum is designed for students seeking the knowledge and skills needed to prepare for entry-level careers in Unified Communications. This is a hands-on program that emphasizes practical experience. CCNA Voice aims to develop an understanding of telephony principles and the design and implementation of a small to medium sized IP Telephony solution.

Primary Goals

This program provides students with the skills needed to succeed in voice networking-related degree programs and helps them prepare for IUC certification. It also helps students develop the skills necessary to fulfill the job responsibilities of voice network technicians, network administrators, and network engineers. It provides a theoretically-rich, hands-on introduction to Voice Over IP installations. CCNA Voice will equip students with the knowledge and skills needed to prepare for entry-level careers in Unified Communications.

Admission Guidelines

The student should preferably have CCNA-level traditional telephony knowledge.

Consideration for Certification

This program leads to the 640-461 ICOMM Unified communications certification exam that is associated with the CCNA Voice certification.

Articulation

At this time there is no articulation towards a credit degree.

CITRIX XenDesktop

Purpose

The CITRIX XenDesktop course is designed for students who are seeking entry level virtualization skills. This course provides the foundation necessary for administrators to effectively centralize and manage desktops in the datacenter and deliver them as a service to users anywhere using CITRIX XenDesktop. The course provides hands-on comprehensive coverage of configuring and implementing XenDesktop topics, from fundamentals to advanced applications and services.

Primary Goals

The program provides students with the skills needed to succeed in virtualization and cloud related programs and helps them prepare for the CCA certification. It also helps students develop the skills

necessary to fulfill the job responsibilities of cloud technicians, virtual network administrators, and network engineers. It provides hands-on introduction to virtualization and virtual networking.

Admission Guidelines

Knowledge of Windows Server 2008 R2 and above.

Consideration for Certification

This program leads to the CITRIX Certified Administrator for XenDesktop certification. The student must get a minimum of 70% adjusted score to graduate. A certificate of completion is awarded by CITRIX.

Articulation

Students who have successfully obtained the CITRIX XenDesktop certification and who enroll in the Montgomery County Community College Cloud Computing Certificate may be eligible for up to 3 credits towards the completion of the Cloud Computing Certificate.

CITRIX XenServer

Purpose

The Citrix XenServer curriculum is designed for students who are seeking entry-level virtualization skills. The course provides hands-on comprehensive coverage of configuring and implementing XenServer topics, from fundamentals to advanced applications and services to include XenCenter and XenMotion.

Primary Goals

This program provides students with the skills needed to succeed in virtualization and cloud related programs and helps them prepare for the CCA certification. It also helps students develop the skills necessary to fulfill the job responsibilities of cloud technicians, virtual network administrators, and network engineers. It provides a hands-on introduction to virtualization and virtual networking.

Admission Guidelines

Knowledge of Windows Server 2008 R2 and above.

Consideration for Certification

This program leads to the CITRIX Certified Administrator for XenServer certification. The student must get a minimum of 70% adjusted score to graduate. A certificate of completion is awarded by CITRIX.

Articulation

At this time there is no articulation towards a credit degree.

CREATE YOUR OWN WEBSITE FROM START TO FINISH

Purpose

This course is designed for students and professionals who want to design and create a functional web site. Target students include those who want to prepare for careers in web design, computer graphics and multi-media.

Primary Goals

This short 12 hour program starts with the fundamentals of Web design and moves up to the use of the Dreamweaver to create dynamic web pages. This will help students that are looking at careers in Web design and those who want to create and maintain their own web sites.

Admission Guidelines

There are no prerequisites for this program.

Consideration for Certification

A certificate of program completion is awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

HEALTH INFORMATION TECHNOLOGIST

Purpose

Utilizing official curriculum from Comp TIA, this program will train students to repair, maintain, secure PCs and mobile devices and install and troubleshoot operating systems. Students will also learn how to plan, configure and create small local area networks and configure wireless devices. They will be exposed to basic medical terminologies, medical business operations and network security. These courses will position students for employment in the rapidly growing health care IT field and entry level IT industry.

Primary Goals

The primary goals of this program are to prepare students for employment in the fast growing health care IT market in particular and entry level IT jobs in general.

Admission Guidelines

The student should have basic computer fluency.

Consideration for Certification

Students will also be prepared to sit for the A+, Net+ and HIT technician industry certification exams, giving them the opportunity to earn three reputed industry certifications. A certificate of program completion will be awarded by the College.

Articulation

Students who complete the A+ course may be eligible for up to 3 credits; the course articulates to the CIS 113

MICROSOFT CERTIFIED SOLUTIONS EXPERT (MCSE)

Purpose

The Microsoft Certified Solutions Expert (MCSE) certification reflects a unique set of skills required to succeed in a variety of job roles, such as systems administrator, network administrator, information systems administrator, network operations analyst, network technician, and technical support specialist.

Primary Goals

This program provides students with the hands-on training needed to complement exam preparation for certification. The MCSA consists of three courses covering topics in installing, configuring and administering Microsoft Windows 2012 server.

Admission Guidelines

One to twelve months of experience in working with a desktop operating system, a network operating system, and an existing network infrastructure.

Consideration for Certification

Upon passing the certification exam, students will receive the MCSA: Windows Server 2012 certification.

Articulation

Students who pass the MCSA/MCSE certification exams may be eligible for up to 6 credits for the CIS 158 and CIS 258 courses.

MICROSOFT OFFICE SPECIALIST (MOS)

Purpose

Earning a Microsoft Office Specialist certification helps students differentiate themselves in today's competitive job market, broaden employment opportunities, and result in higher earning potential. For employers, the certification provides skill-verification tools that not only help assess a person's skills in using Microsoft Office programs, but also the ability to quickly complete on-the-job tasks across multiple programs in the Microsoft Office system.

Primary Goals

This course provides an excellent way to prepare for the certification exams and provides the hands-on job training skills in Microsoft Word, Excel, PowerPoint and Access. It is intended for students and information workers whose responsibilities will include the use of Microsoft Office products to organize, structure and manage data in organizations of every size.

Admission Guidelines

There are no pre-requisites for this course.

Consideration for Certification

Upon passing the certification exams, students receive the Microsoft Office Specialist (MOS) credential.

Articulation

Students who have successfully obtained the MOS certification and who enroll in the Montgomery County Community College Office Administration AAS may be eligible for up to 13 credits towards the completion of the Office Administration AAS.

QUICKBOOKS

Purpose

Participants will utilize QuickBooks to learn how to manage their small business finances. They will focus on accounts payable, accounts receivable, and learn to track information that is vital to running a business.

Primary Goals

Students in this program will learn the software that runs small businesses. Students will set up a company file, create invoices, write checks, prepare payroll and taxes, and create reports to handle the financial responsibilities of a small business.

Admission Guidelines

QuickBooks: none

QuickBooks Payroll: Students should have previous knowledge of QuickBooks software; familiarity of payroll laws and filing due dates applicable to their business for federal and state withholdings and unemployment.

Consideration for Certification

A certification of program completion will be awarded by the College.

Articulation

At this time there is no articulation towards a credit degree.

WASTEWATER TREATMENT OPERATOR CERTIFICATION

Purpose

This 180-hour program is certified by the PA Department of Environmental Protection to prepare entry-level operators with the skills, tools, and knowledge to meet the responsibilities of the job. Components of the course are offered as separate modules which may be applied toward an operator's experience requirements for certification.

Primary Goals

The primary goals of this course are:

- Understand the role of the treatment plan operation
- Understand basic wastewater treatment process
- Understand state and federal regulations

Admission Guidelines

Knowledge of basic math skills.

Consideration for Certification

Upon successful completion of the course, students are eligible to sit for the certification exam.

Articulation

At this time there is no articulation towards a credit degree.

SOCIAL SCIENCES DIVISION

Prerequisite Education and Experience

Prerequisite education and experience includes one of the following:
a) bachelor's degree in early childhood education, child development, special education, elementary education or the human services field and one year experience working with children; b) bachelor's degree, including 30 credit hours in early childhood education, child development, special education, elementary education or the human services field and two years experience working with children; c) associate's degree in early childhood education, child development, special education or the human services field and three years experience working with children; or d) associate's degree in any other field, including 30 credit hours of early childhood education, child development, special education, elementary education, or the human services field and four years experience working with children.

CRIMINAL JUSTICE (A.S.)

Purpose

The Criminal Justice Studies A.S. Program is a theory and knowledge-based curriculum that offers comprehensive preparation for transfer to a four-year baccalaureate program in Criminal Justice, as well as a wide range of career options in the criminal justice system. Many of our students either go on to, or come to us from, Act 120 municipal police training or Act 2 deputy sheriffs' training. Our graduates pursue careers in local law enforcement, the federal services, corrections, adult and juvenile probation and parole, court administration, and the private security sector. Many of our graduates go on to attain four-year degrees in criminal justice or allied fields of study. Some pursue pre-law, law school, and eventual careers in the prosecutorial or criminal defense bars.

A four-course, twelve-credit Certificate of Completion in Homeland Security is available in conjunction with the A.S. degree in Criminal Justice. Interested students should contact the Program Director.

The Criminal Justice AS curriculum introduces students to the rewards of public service and to the personal satisfaction and honor that a career in public service can offer.

The curriculum also offers in-service professionals already in the field, an opportunity for further educational and professional growth.

Program Outcomes

A graduate should be able to:

- Demonstrate an appreciation of and sensitivity toward the ethnic, racial and gender diversity of American society, and an understanding of how these values can be reflected and projected by the criminal justice system
- Demonstrate a thorough understanding of the functions and roles of all major aspects of the United States criminal justice system in society

- Demonstrate an appreciation of the cardinal concept of due process of law which constitutes the basic standards of fairness and decency that are necessary for the maintenance of free society and an understanding of the constitutional underpinnings, theory and structure of our body of criminal law, procedure, and the rules of evidence
- Demonstrate a firm grasp of the constitutional constraints under which police and prosecutors must operate in a free society, and the reasoning behind these limitations
- Identify and analyze the ethical issues that arise in each component of the criminal justice system.

FIRST SEMESTER

| | | |
|---------|----------------------------------|-------------------|
| ENG 101 | English Composition - I | 3 |
| SPC 120 | Public Speaking | 3 |
| HIS 205 | History of U.S. from 1877 | 3 |
| CJS 100 | Introduction to Criminal Justice | 3 |
| CJS 105 | Criminal Law | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|----------|--|-------------------|
| ENG 221 | Literature of the Western World – I | 3 |
| SOC 101 | Introduction to Sociology | 3 |
| Elective | Math Elective: Core Goal 3: Quant. Skills* | 3 |
| CJS 107 | Criminal Procedure & Rules of Evidence | 3 |
| CJS 205 | Ethics and the Am. Criminal Justice System | 3 |
| Elective | Core Goal 10: Exercise & Health Sci. | 2 |
| | | (17 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|-------------------|
| Elective | (Core Goal 7 & TAOC Area 6)**** | 3 |
| CJS 220 | Criminology | 3 |
| Elective | Core Goal 8: Physical & Life Sciences** | 4 |
| Elective | Math Elective*** | 3 |
| CIS 110 | Introduction to Information Systems | 3 |
| | | (16 credit hours) |

FOURTH SEMESTER

| | | |
|----------|------------------------------|-------------------|
| Elective | CJS Elective | 3 |
| CJS 235 | Juvenile Justice | 3 |
| CJS 240 | Corrections | 3 |
| Elective | Physical & Life Science** | 4 |
| POL 124 | American National Government | 3 |
| | | (16 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 64

*MAT 103 or 106

** meet TAOC

*** MAT 100, 103, Or 106

**** TAOC Area 6: ART 101, ART 102, ART 103, ART 111, ART 121, MUS 11, MUS 114, PHI 100, or PHI 221

Graduates of accredited Pennsylvania Municipal Police Academies are eligible for articulation of up to fifteen (15) credit hours toward the required courses for the A.S. degree in Criminal Justice. For further information contact the Program Director. Students electing the Certificate of Completion in Homeland Security as a secondary credential will complete CJS 250 – Terrorism & Counterterrorism, CJS 251 – Introduction to Homeland Security, CJS 252 – Intelligence Analysis & Security Management, and CJS 253 – Transportation & Border Security. Any one of these courses may be applied in satisfaction of the CJS elective requirement in Semester 4. The other three will constitute additional courses beyond the basic AS degree requirements.

**EDUCATION IN THE EARLY YEARS:
BIRTH THROUGH FOURTH GRADE (A.A.)**

Purpose

Education in the Early Years: Birth through Fourth Grade is a program to prepare graduates for professional opportunities in early childhood education as teachers in child care settings, as professionals in family child care facilities, or as teachers in corporate child care. The program will also prepare graduates who want to pursue Bachelors' degrees for transfer to four-year colleges. Students who transfer with a grade point of average of 3.0 and pass the Preservice Academic Performance Assessment (PAPA) exams may be eligible to be admitted to an Education Program at a four- year institution, which could lead to PA certification to teach pre-kindergarten through fourth grade. The courses in this program include both general education courses as well as professional education courses related to the development and teaching of children through grade four. In the last semester of the program, students will student teach in an early childhood environment with an experienced teacher under the supervision of College faculty.

Accreditation

The Education in the Early Years: Birth through Fourth Grade degree program at Montgomery County Community College has earned Accreditation from the National Association for the Education of Young Children (NAEYC) Commission on Early Childhood Associate Degree Accreditation. Additional information about the NAEYC Commission on Early Childhood Associate Degree Accreditation can be obtained by contacting the organization directly at 1313 L Street NW, Suite 500, Washington, D.C. 20005 | (202) 232-8777 | (800) 424-2460 | webmaster@naeyc.org.

Program Outcomes

- Upon completion of the program graduates will be able to:
- Identify typical and atypical milestones in child development.
 - Assess the appropriateness of early literacy opportunities in early childhood environments.
 - Create curricula and environments that are cognitively, physically and social-emotionally appropriate for children's ages and needs.
 - Communicate effectively with young children, their parents, and peers.
 - Design activities that promote positive school-family-community relationships.
 - Collaborate with teachers to create learning opportunities that meet the needs of all students.

FIRST SEMESTER

| | | |
|-------------|--|-------------------|
| EDU 100 | Introduction to Education | 3 |
| HIS 203,205 | US History | 3 |
| MAT 103 | Foundations of Mathematics I | 3 |
| ENG 101 | English Compositions I | 3 |
| EDU 213 | Working with Special Needs Students..... | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|----------------|--|-------------------|
| ENG 221 or 222 | Intro to Western Lit | 3 |
| EDU 210 | Teaching Young Children | 3 |
| SPC 120 | Public Speaking | 3 |
| EDU 245 | Connecting Families, Schools and Communities | 3 |
| MAT 104 | Foundations of Math II..... | 3 |
| Elective | See note below* | 3 |
| | | (18 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|-------------------|
| EDU 225 | Guiding Children's Reading | 3 |
| EDU 240 | Teaching English Language Learners | 3 |
| PSY 200 | Child Psychology | 3 |
| Elective | Core Goal 8: Physical and Life Sciences**** | 4 |
| Elective | See note below** | 3 |
| | | (16 credit hours) |

FOURTH SEMESTER

| | | |
|--------------|----------------------------------|-------------------|
| EDU 250 | Student Teaching | 6 |
| EDU 233 | Early Childhood Curriculum | 3 |
| EDU Elective | See note below*** | 3 |
| | | (12 credit hours) |

* Check with Transfer Institution and Elective must be TAOC approved course. PSY 101, 206, or 210 are recommended.

** Choose from – ART 101, 102, 103, 111, 121 or MUS 110

*** Possible Education electives are Teaching with Technology (EDU 120), Infant & Toddler Development (EDU 114), Teaching Math (EDU 227), Teaching Science (EDU 229), Art for Young Children (EDU 226).

**** Students must choose from AST 120/PHY 120/GLG 121, BIO 120, BIO 121, CHE 121, CHE 131 or PHY 121

TOTAL SEMESTER CREDIT HOURS: 61

**EDUCATION IN THE MIDDLE YEARS:
FOURTH THROUGH EIGHTH GRADE (A.A.)**

Transfer Curriculum

Purpose

The Education in the Middle Years: Fourth through Eighth Grade program is comparable to the first two years of a four year college or university program in Middle Years/Elementary education. The student takes several professional education courses and will need to decide on one or two areas of concentration, depending on transfer institution. They will select other courses based on that decision.

Program Outcomes

- Identify the roles, responsibilities, and characteristics of successful teachers.
- Determine his/her own motivations, desires, and interests pertaining to a teaching career in a middle school and explain why s/he has made the decision.
- Apply instructional strategies that effectively integrate technology use in the classroom.
- Identify the challenges that students from diverse communities and families may face and recognize the teacher's role in supporting all students in the classroom.
- Apply instructional strategies and identify ways to differentiate instruction for students that have special learning, physical or language differences.

FIRST SEMESTER

| | | |
|-----------|---|-------------------|
| ENG 101 | English Composition I..... | 3 |
| EDU 213 | Introduction to Special Education | 3 |
| Elective* | Core Goal 6: Intellectual Heritage..... | 3 |
| Elective | Core Goal 3: Quantitative Skills..... | 3 |
| EDU 100 | Introduction to Education... | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|-----------|--|-------------------|
| EDU 120 | Teaching with Technology | 3 |
| EDU 240 | Teaching English Language Learners | 3 |
| PSY 204 | Adolescent Psychology | 3 |
| Elective* | Elective | 3 |
| Elective* | Elective | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|-----------|--|----------------------|
| Elective* | Elective | 3 |
| Elective* | Elective | 3 |
| Elective* | Elective | 3 |
| BIO 115 | Environmental Biology | 3 |
| Elective | Core Goal 10: Exercise & Health Sciences | 2-3 |
| | | (14-15 credit hours) |

FOURTH SEMESTER

| | | |
|-----------|---|----------------------|
| Elective* | Elective | 3 |
| Elective | Core Goal 8: Physical & Life Sciences | 3-4 |
| Elective | Core Goal 1b: Oral Communication Skills | 3 |
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| Elective* | Elective | 3 |
| | | (16-17 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60-62

*See advisor for specific course information/recommendations based on transfer institution program requirements.

EMERGENCY MANAGEMENT & PLANNING (A.A.S.)

Purpose

The Emergency Management & Planning AAS degree prepares students for technical, managerial, and ‘command’ careers in emergency management and planning, disaster preparedness, and homeland security. The curriculum focuses on the over-arching administrative, managerial, and planning skill-sets necessary for inter-agency and intergovernmental preparation and response.

Our graduates pursue and attain professional careers with:

- Local, state, and federal emergency planning agencies including municipal and county departments of public safety, the Pennsylvania Emergency Management Agency (PEMA), and the Federal Emergency Management Agency (FEMA)
- Agencies and companies operating in all sectors of emergency services delivery, including fire departments, police departments, hospitals, EMS services, and ambulance companies
- Private-sector companies and non-profit organizations fulfilling significant internal and public disaster preparedness and response roles, including companies such as Boeing, Lockheed-Martin, Merck, Sun Energy, American Red Cross, and others.

The Emergency Management & Planning Program is designed for those who are interested in pursuing careers in emergency services and emergency preparedness. It is also designed to foster a higher level of knowledge and competency for persons already engaged in these who want to advance their professional careers.

The Program also aims to facilitate transfer to the growing number of 4-year baccalaureate programs in Emergency Management that are available in our region and across the nation.

Within the framework of the Emergency Management & Planning AAS, a formal concentration is available in Homeland Security.

Program Outcomes

A graduate of the program will be able to:

- Explain the difference between “emergency planning” and “emergency management.”
- Describe the regulatory and intergovernmental framework of emergency management and planning.
- Perform a variety of different roles and employ teamwork, team-building, and leadership skills in the context of incident management and planning exercises.
- Explain how planning affects and facilitates preparedness.
- Design an interactive planning process for companies and municipalities.
- Explain and differentiate between the principles of “Incident Command” and “Unified Command.”
- Identify, evaluate, and respond to a range of specific hazardous conditions and scenarios in both individual and group exercises.
- Design a site safety plan.
- Apply “all-hazards” planning methodology in preparing for mass casualty events, including acts of terrorism.

FIRST SEMESTER

| | | |
|----------|--|-------------------|
| ENG 101 | English Composition-I | 3 |
| Elective | Core Goal 3: Quantitative Skills | 3 |
| FSC 100 | Introduction to Fire Science | 3 |
| EMP 100 | Emergency Planning | 3 |
| POL 124 | American National Government | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|----------|---|-------------------|
| ENG 102 | English Composition II | 3 |
| Elective | Core Goal 8: Physical and Life Sciences | 4 |
| EMP 110 | Incident Management | 3 |
| FSC 103 | Fire Dept Org & Mgmt OR | |
| CJS 270 | Police Dept Org & Admin | 3 |
| POL 125 | State & Local Government or | |
| POL 231 | Public Policy Management | 3 |
| | | (16 credit hours) |

THIRD SEMESTER

| | | |
|----------|---|-------------------|
| HIS 102 | History of Western Civilization II | 3 |
| FSC 102 | Hazardous Materials | 3 |
| EMP 120 | Search & Rescue | 3 |
| Elective | Core Goal 13: Ethical Reasoning & Behavior | 3 |
| CJS 250 | Terrorism & Counterterrorism | 3 |
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| | | (18 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| EMP 210 | Leadership & Influence in Em Response | 3 |
| EMP 200 | Seminar in Emergency Management | 1 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| EMP 265 | Public Safety Technology | 3 |
| SPC 110 | Introduction to Speech Communication | 3 |
| ESW 245 | Safety and First Aid | 3 |
| | | (16 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 65

*The above curriculum will place the student within 2 additional FSC elective courses of qualifying for a FSC certificate as well as the EMP AAS degree.

Students electing the formal concentration in Homeland Security will elect the following modifications to the standard EMP AAS curriculum: CJS 251 – Introduction to Homeland Security, will replace EMP 120 – Search & Rescue; CJS 252 – Intelligence Analysis & Security Management, will replace EMP 210 – Leadership & Influence in Emergency Response; CJS 253 – Transportation & Border Security, will replace FSC 103 – Fire Department Organization & Administration.

EMERGENCY MANAGEMENT & PLANNING (CERTIFICATE)

Purpose

The EMP Certificate is designed to prepare students for entry level technical or administrative careers in the emergency response services that do not require a degree.

The EMP Certificate is also designed as a dual or second credential for Criminal Justice (CJS), Fire Science (FSC), and Emergency Medical Technology (EMT) majors who aspire to senior administrative, management, or command roles. It is designed to provide them with the necessary knowledge of the technical subject field, professional skills, and state-of-the-art techniques necessary to manage, coordinate, and plan for emergency response in both the public and private sectors.

Program Outcomes

The graduate should be able to demonstrate the knowledge and skills necessary to obtain or maintain entry level employment in the public or private field of emergency management & planning. The EMP Certificate Program is also designed to specifically augment the College's degree curricula in Criminal Justice and Fire Science by providing a highly relevant supplemental skill set.

FIRST SEMESTER

| | | |
|---------|------------------------------------|-------------------|
| EMP 100 | Emergency Planning | 3 |
| EMP 110 | Incident Management | 3 |
| FSC 100 | Introduction to Fire Science | 3 |
| ESW 245 | Safety and First Aid | 3 |
| POL 125 | State & Local Government or | |
| POL 231 | Public Policy Management..... | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|---------|---|-------------------|
| EMP 120 | Search & Rescue | 3 |
| EMP 210 | Leadership & Influence in Em Response | 3 |
| FSC 102 | Hazardous Materials | 3 |
| EMP 200 | Seminar in Emergency Management | 1 |
| EMP 250 | Terrorism & Counterterrorism..... | 3 |
| EMP 265 | Public Safety Technology | 3 |
| | | (16 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 31

* The EMP Certificate is designed to be worked on concurrently with the FSCAAS Degree.

FIRE SCIENCE (A.A.S.)

Purpose

The Fire Science AAS degree is designed to prepare students for technical, managerial, and 'command' careers in the public fire service and the private sector.

Our graduates pursue and attain professional careers in:

- The public fire service;
- Heavy industrial fire brigades;
- Fire control and suppression systems engineering and sales;
- Fire equipment sales and service;
- Civilian and military safety, rescue, and crash response teams;
- Local, state and federal public safety, emergency preparedness, and disaster recovery agencies.

While the public fire service in Pennsylvania has historically been volunteer-based, our larger cities have maintained professional, salaried departments for many decades. Many suburban departments and companies are also transitioning to salaried or 'combination' arrangements. The public fire service is steadily professionalizing, and new career paths are opening up all the time.

In the private sector, large industrial and manufacturing companies in our region – such as Sun Energy, Merck, Boeing, and Lockheed-Martin – retain their own, onsite industrial fire brigades. In addition to nationally-recognized certifications, a formal academic credential in Fire Science offers a significant competitive edge toward hiring or promotion. Montgomery County Community College's AAS degree in Fire Science is accredited by IFSAC – the International Fire Service Accreditation Congress.

Program Outcomes

A graduate should be able to:

- Demonstrate a thorough understanding of the field of fire science in both the public and private sectors.
- Demonstrate the necessary skills to effectively and efficiently work within the organizational structure of the fire science field.
- Demonstrate a working knowledge of the basic field strategy and tactics that relate to various kinds of specific fire situations.
- Be able to identify, classify, and respond to the various kinds of hazardous materials events.
- Demonstrate a thorough understanding of the laws and ordinances related to fire prevention, protection and mitigation, and alarm systems.
- Demonstrate a thorough understanding of fire prevention and suppression techniques.
- Demonstrate an understanding of the causes, motives, and methods of arson, and the tools and methodologies available in fire and arson investigation.

FIRST SEMESTER

| | | |
|----------|---|-------------------|
| ENG 101 | English Composition I | 3 |
| FSC 100 | Introduction to Fire Science | 3 |
| ESW 245 | Safety & First Aid | 3 |
| Elective | Core Goal 6: Intellectual Heritage..... | 3 |
| Elective | Core Goal 3: Quantitative Skills..... | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|---------|--------------------------------------|-------------------|
| ENG 102 | English Composition II..... | 3 |
| FSC 101 | Emergency Scene Management | 3 |
| FSC 102 | Hazardous Materials | 3 |
| FSC 103 | Fire Dept Organization & Admin | 3 |
| POL 124 | American National Government | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|---------|---|---|
| FSC 104 | Building Construction | 3 |
| FSC 105 | Fire Prevention & Code Enforcement..... | 3 |
| FSC 106 | Fire Investigation | 3 |

| | | |
|----------|--|-------------------|
| Elective | Core Goal 13: Ethical Reasoning & Behavior | 3 |
| CHE 121 | General Chemistry | 4 |
| | | (16 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| FSC 108 | Fire Protection Systems | 3 |
| SPC 110 | Speech Communication | 3 |
| FSC 265 | Public Safety Technology | 3 |
| POL 125 | American State & Local Govt. | 3 |
| Elective | Core Goal 4: Computer Fluency | 3 |
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts | 3 |
| | | (18 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 64

*Students who have successfully completed certain state or nationally-recognized training certifications coursework at a Commonwealth of Pennsylvania approved Fire Academy or other recognized institution or agency, may be eligible for up to 12 15 credits in Fire Science. Please contact the Director of the Criminal Justice Studies & Fire Science Programs for more information.

FIRE SCIENCE (CERTIFICATE)

Purpose

The Fire Science Certificate is designed to prepare students for entry level technical or administrative careers in the emergency response services that do not require a degree.

The Fire Science Certificate is also designed as a dual or second credential for Emergency Management & Planning (EMP) majors who aspire to senior administrative, management, or command roles. It is designed to provide them with the necessary knowledge of the technical subject field, professional skills, and state-of-the-art techniques necessary to manage, coordinate, and plan for emergency response in the fire services in both the public and private sectors.

Program Outcomes

The graduate should be able to demonstrate the knowledge and skills necessary to obtain or maintain entry level employment in the public or private fire services.

The Fire Science Certificate Program is also designed to specifically augment the College's degree curricula in Emergency Management & Planning by providing a highly relevant supplemental skill set for those already working in the fire service or in similar capacities.

FIRST SEMESTER

| | | |
|----------|---|----------------------|
| ENG 101 | English Composition I | 3 |
| FSC 100 | Introduction to Fire Science | 3 |
| FSC 101 | Emergency Science Management | 3 |
| FSC 102 | Hazardous Materials | 3 |
| Elective | Speech, Computer, Math, or Science..... | 3-4 |
| | | (15-16 credit hours) |

SECOND SEMESTER

| | | |
|--|---|-------------------|
| FSC 104 | Building Constr for the Fire Sciences | 3 |
| FSC 265 | Public Safety Technology | 3 |
| ESW 245 | Safety and First Aid | 3 |
| POL 125 | American State & Local Govt. | 3 |
| Social Science Elective (not Fire Science) | | 3 |
| | | (15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 30-31

**GEOGRAPHIC INFORMATION SYSTEMS
(CERTIFICATE OF COMPLETION)**

This three course, nine credit series will prepare students to operate Geographic Information Systems. The courses utilize ESRI's ArcView software, the industry leader. By the end of this series, each student will have developed an electronic portfolio. Local job opportunities for GIS operators include:

- city and state management including utilities, transportation, zoning and planning;
 - human services including hospital administration, public health and housing redevelopment;
 - emergency services including dispatch, crime analysis and disaster response;
 - natural sciences including hydrology and geology, forest and species management and air quality monitoring; and
 - business services including marketing, location selection and real estate
- GEO 210—Introduction to Geographic Information Systems
 - GEO 220—Map Design
 - GEO 230—GIS Workshop

HUMAN SERVICES (A.A.S.)

Purpose

The Associate of Applied Science Degree in Human Services is designed to prepare graduates for careers as human service professionals in mental health agencies, developmental disability programs, addictions programs, public and private schools for the disabled, and programs for the aging. Employment opportunities include case management, youth and family support professional, social services coordinator, residential counselor, behavioral management aid, addictions specialist, child advocate, juvenile court liaison, domestic violence liaison, home health aide, group home professional, crisis intervention specialist, community education coordinator, program coordinator, adult day care assistant or coordinator, life skills instructor, consumer advocate, social service aide, therapeutic recreation assistant, intake interviewer, community outreach worker, social work assistant, community action professional, halfway house coordinator, rehabilitation case professional, residential manager, and volunteer coordinator.

Program Outcomes

- A graduate should be able to:
- Demonstrate the knowledge and skills needed to work in direct service delivery for human service agencies and programs.
 - Illustrate a clear understanding of human behavior in all age groups.
 - Explain and apply appropriate skills necessary for a micro/macro perspective in human service delivery systems.
 - Assess and summarize concepts of psychological and sociological theories necessary for intervention techniques.

FIRST SEMESTER

| | | |
|-------------|---|-------------------|
| ENG 101 | English Composition I | 3 |
| HSW 101 | Introduction to Human Services & the Helping Profession | 3 |
| PSY 101 | Introduction to Psychology | 3 |
| SOC 101 | Introduction to Sociology | 3 |
| HSW/SOC 130 | Introduction to Youth and Family | 3 |
| Elective | Core Goal 4: Computer Fluency..... | 3 |
| | | (18 credit hours) |

SECOND SEMESTER

| | | |
|-------------|---|-------------------|
| ENG 102 | English Composition II | 3 |
| PSY 206 | Human Development/Life Span Approach | 3 |
| HSW 102 | Theories of Group Counseling | 3 |
| HSW/SOC 105 | Social Policy & Ethics in Human Services | 3 |
| HSW/SOC 254 | Aging in the United States | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences (Recommended ESW 245) | 3 |
| | | (18 credit hours) |

THIRD SEMESTER

| | | |
|-------------|--|-------------------|
| HSW 202 | Theories of Individual Counseling | 3 |
| HSW/PSY 203 | Assessment & Documentation in Human Services | 3 |
| HSW 205 | Volunteer Administration | 3 |
| HSW 210 | Professional Development in Human Services | 3 |
| PSY 215 | Abnormal Psychology | 3 |
| HSW/PSY 219 | The Drug and Alcohol Treatment Process: An Introduction | 3 |
| | | (18 credit hours) |

FOURTH SEMESTER

| | | |
|----------|---|-------------------|
| HSW 211 | Human Services Practicum | 6 |
| Elective | Core Goal 6: Intellectual Heritage | 3 |
| Elective | Core Goal 7: Aesthetic Sensibility & the Arts | 3 |
| Elective | Core Goal 8: Physical and Life Sciences | 3-4 |
| | | (16 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 70

Addictions Concentration

- Second Semester HSW 160 or PSY 217 or CJS 240 in place of HSW/SOC 254
- Second Semester HSW 220 in place of PSY 206

Child, Youth and Family Services Concentration

- Second Semester HSW/PSY 216 in place of HSW 254
- Second Semester CJS 235 in place of PSY 206
- Third Semester HSW 220 in place of HSW 219

Gerontology Concentration

- First Semester HSW 155 in place of HSW/SOC 130
- Second Semester HSW 206 in place of PSY 206
- Third Semester HSW/PSY 250 in place of HSW/PSY 219

ADDICTIONS (CERTIFICATE)

Purpose

The Drug and Alcohol Studies Certificate is designed for students who may not wish to pursue an associate degree in Human Services at this time; for students who have previously earned college degrees in other disciplines who may be contemplating a change of career or career focus; and for those working toward their CAC which is awarded by the Pennsylvania Certification Board (PCB)*. This program is designed with enough flexibility to meet the needs of beginning students as well as those with more experience in the substance abuse field.

Program Outcomes

The graduate should be able to:

- Demonstrate the theoretical knowledge and skills necessary to obtain entry level employment in an agency, facility or program for the treatment and/or prevention of addiction.

- Understand the basics of the screening, intake and orientation (client) procedures used in diverse settings.
- Demonstrate a theoretical knowledge of various assessment models and their implication for evaluating a client and developing a treatment plan.
- Work with a client, consult with other professionals in treatment planning and, when necessary, make referrals.
- Understand the process of case management and coordination of services for the treatment of addictions,
- Write reports, write progress notes, "chart" a client's progress from intake to discharge, and keep accurate records,
- Respond, or know how to obtain assistance in responding, to clients in acute physical or emotional distress (crisis intervention),
- Demonstrate a knowledge of the major theories and skills of counseling, both individual and group, believed to be effective in treating addictions.
- Understand and demonstrate sensitivity to issues of cultural diversity.

FIRST SEMESTER

| | | |
|---------|---------------------------------|---|
| HSW 101 | Human Services I | 3 |
| PSY 217 | Drugs—Their Use and Abuse | 3 |

| | | |
|---------|---|-------------------|
| ENG 101 | English Composition I | 3 |
| HSW 105 | Social Policies/Ethics | 3 |
| HSW 210 | Professional Development | 3 |
| HSW 102 | Theories of Group Counseling OR | |
| HSW 202 | Theories of Individual Counseling | 3 |
| | | (18 credit hours) |

SECOND SEMESTER

| | | |
|-------------|--|-------------------|
| HSW 203 | Assessment/Documentation in Human Services | 3 |
| HSW/PSY 219 | Drug and Alcohol Treatment Process | 3 |
| HSW 205 | Volunteer Administration | 3 |
| HSW 220 | Introduction to Adjunctive Therapies | 3 |
| HSW 211 | Services Practicum I | 6 |
| | | (18 credit hours) |

*Note: The Pennsylvania Certification Board (PCB) certifies both addiction counselors and prevention specialists. Course work from this program may fulfill a portion of those PCB requirements.

The PCB requires Certified Addictions Counselors to complete additional hours of continuing education and training for recertification. Selected courses from this HSW program may be used for part of this requirement. For further information regarding education requirements for recertification, contact PCB at 717-540-4455.

1 Work must be done in a drug and/or alcohol treatment or prevention agency and have faculty supervision.

Note: Substitutions must be approved by the Program Coordinator.

TOTAL SEMESTER CREDIT HOURS: 37

GERONTOLOGY (CERTIFICATE)

Purpose

The Gerontology Certificate program is designed to prepare graduates for human services careers in programs, facilities, and agencies for the older adult. These include: administrator, activities director, adult day care provider, adult education teacher, case worker, consumer advocate, counselor, estate financial planner, family service consultant, geriatric mental health worker, gerontological social worker, human resource specialist, industrial gerontologist, insurance specialist, retirement home director, program planner, researcher, senior center manager, senior employment specialist, social service consultant, social security specialist, and volunteer coordinator.

Program Outcome

The graduate should be able to:

- Demonstrate all of the skills and knowledge needed to obtain entry level employment in an agency or facility for the older adult. (HSW 102, 202 and 211 are restricted to Human Services majors, unless an exception is made by the Program Coordinator.)

FIRST SEMESTER

| | | |
|---------|--|-------------------|
| HSW 101 | Intro to Human Services and Helping Profession | 3 |
| HSW 155 | Introduction to Aging | 3 |
| HSW/ | | |
| PSY 250 | Psychology of Aging | 3 |
| HSW 105 | Social Policies/Ethics | 3 |
| HSW 210 | Professional Development | 3 |
| ENG 101 | ¹ English Composition I | 3 |
| | | (18 credit hours) |

SECOND SEMESTER

| | | |
|---------|--|-------------------|
| HSW 203 | Assessment/Documentation in Human Services. | 3 |
| HSW 206 | Hospice: Concepts and Skills | 3 |
| HSW 205 | Volunteer Administration..... | 3 |
| HSW/ | | |
| SOC 254 | Aging in the United States | 3 |
| HSW 211 | ² Human Services Practicum | 6 |
| | | (18 credit hours) |

1 The student may be exempted from taking this course by meeting one of the following conditions: a) transfer an equivalent credit course from another college; b) pass successfully the CLEP Examination or Challenge Examination at Montgomery County Community College.

2 Students who are employed in a gerontological setting may use this agency for their supervised field placement with Program Coordinator's approval.

Note: Substitutions must be approved by the Program Coordinator

TOTAL SEMESTER CREDIT HOURS: 33

HUMAN SERVICES (CERTIFICATE)

Purpose

The Certificate in Human Services is designed to prepare graduates for entry-level human services careers in a variety of community settings. The certificate provides sufficient flexibility to meet the needs of beginning students as well as those working in the human services field.

Program Outcomes

Graduates should be able to:

- Demonstrate the knowledge and skills needed to work in direct service delivery in human service agencies and programs.
- Illustrate a clear understanding of human behavior in all age groups.
- Explain and apply appropriate skills necessary for micro/macro perspective in human service delivery systems.

All courses apply to the Human Services A.A.S. degree.

FIRST SEMESTER

| | | |
|---------|---|---|
| HSW 101 | Human Services and Helping Profession | 3 |
| ENG 101 | English Composition I..... | 3 |
| PSY 101 | Introduction to Psychology | 3 |
| SOC 101 | Introduction to Sociology | 3 |
| HSW 105 | Social Policy and Ethics | 3 |

| | | |
|---------|---|-------------------|
| HSW 210 | Professional Development in Human Services..... | 3 |
| | | (18 credit hours) |

SECOND SEMESTER

| | | |
|----------|--|-------------------|
| HSW 102 | Theories of Group Counseling OR | |
| HSW 202 | Theories of Individual Counseling..... | 3 |
| HSW 203 | Assessment/Documentation in Human Services | 3 |
| HSW 205 | Volunteer Administration | |
| HSW 211 | ¹ Human Services Practicum..... | 6 |
| Elective | Human Services Elective..... | 3 |
| | | (15 credit hours) |

1 Work must be done in a human services agency with supervision provided

TOTAL SEMESTER CREDIT HOURS: 33

SECONDARY EDUCATION (A.A.)

Transfer Curriculum

Purpose

The Secondary Education AA degree program prepares students to transfer into a Secondary Education, Grades 7-12, program at a four-year college that, with passing scores on required state tests, will lead to certification in the Commonwealth of Pennsylvania. Students take several required education courses along with general education courses and are encouraged to choose a content area of academic focus. Prior to course selection, students meet with advisors to discuss transfer options to ensure that they select courses that are appropriate for their transfer institution.

Program Outcomes

Upon successful completion of this program, graduates will be able to:

- Integrate the roles, responsibilities and characteristics of successful teachers into a personal educational philosophy.
- Apply instructional strategies that effectively integrate technology use in the classroom.
- Determine the challenges that students from diverse communities and families may face and the teacher's role in supporting all students in the classroom.
- Differentiate instruction for students that have special learning, physical or language differences.

FIRST SEMESTER

| | | |
|--------------|---|-------------------|
| EDU 100 | Introduction to Education..... | 3 |
| EDU 213 | Introduction to Special Education | 3 |
| HIS 205 | United States History..... | 3 |
| MAT Elective | Core Goal 3: Quantitative Skills..... | 3 |
| ENG 101 | English Composition I | 3 |
| | | (15 credit hours) |

SECOND SEMESTER

| | | |
|--------------|--|-------------------|
| EDU 120 | Teaching with Technology | 3 |
| PSY 101 | Introduction to Psychology | 3 |
| ENG 102 | English Composition II..... | 3 |
| SPC 120 | Public Speaking | 3 |
| MAT Elective | Core Goal 3: Quantitative Skills*..... | 3 |
| | | (15 credit hours) |

THIRD SEMESTER

| | | |
|--------------|-----------------------------|---|
| LIT elective | Literature elective* | 3 |
| Elective | Elective** | 3 |
| PSY 204 | Adolescent Psychology | 3 |

| | | |
|--------------|--|-------------------|
| EDU 240 | English Language Learners |3 |
| ESW Elective | Core Goal 10: Exercise and Health Sciences |3 |
| | | (15 credit hours) |

FOURTH SEMESTER

| | | |
|-------------------|--|-------------------|
| Lab Sci. Elective | Core Goal 8: Physical & Life Sciences* |4 |
| Arts/Hum Elective | Core Goal 7: Aesthetic Sensibility & the Arts* |3 |
| Elective | Elective** |3 |
| PSY 210 | Educational Psychology |3 |
| Elective | Elective** |3 |
| | | (16 credit hours) |

*Choose elective according to MCCC Core requirement and Transfer Institution requirements

**Consider content focus and Transfer Institution requirements

TOTAL SEMESTER CREDIT HOURS: 60

**HOMELAND SECURITY
(CERTIFICATE OF COMPLETION)**

Purpose

Homeland Security is a rapidly-growing area of employment opportunity. In order to facilitate an entrée toward a formal academic credential in the field, the College offers a four-course, twelve-credit Certificate of Completion that will, by itself, have job and career value.

This introductory program in Homeland Security is specially designed for students who may be seeking additional training to facilitate a career change. It may also appeal to students who are already working in the field, but who have no or limited prior college experience, and who are interested in enhancing their career advancement prospects.

Program Outcomes

Upon successful completion of the Certificate of Completion in Homeland Security, each graduate will be able to:

- Classify the 'All-Hazards' roles, functions, and relationships among local, federal and international law enforcement, intelligence, and security agencies in fulfilling diverse homeland security missions.
- Apply an operational knowledge of intelligence-gathering and analysis pertinent to homeland security and other threats facing government and the private sector.
- Construct an in-depth case study analysis of an individual contemporary terrorist group or movement using open-source intelligence covering: history, geography, and culture; ideology and political or social objectives; leadership, organizational structure, and finances; major actions, alliances, and proxies; and national and international suppression efforts.
- Create effective strategies for local, state, national and international law enforcement agencies, aimed protecting transportation systems, passengers and cargos, and international border crossing points.

Curriculum

The four courses comprising the Certificate of Completion are:

- CJS 250 – Terrorism & Counterterrorism
- CJS 251-- Introduction to Homeland Security
- CJS 252 – Intelligence Analysis & Security Management
- CJS 253 – Transportation & Border Security

TOTAL CERTIFICATE CREDITS: 12

**SECURITY MANAGEMENT
(CERTIFICATE OF COMPLETION)**

Security Management is a growing workforce sector – even in today’s challenging job market. Specific industries, such as the gaming industry and the financial services industry, are experiencing shortages of well-educated specialists in the field. This four-course, twelve-credit curriculum will prepare students to enter the supervisory and managerial ranks in the private and public security field.

- CJS 100 Introduction to Criminal Justice System
- CJS 200 Criminal Investigation
- CJS 275 Administering the Business of Security
- EMP 100 Emergency Planning

These courses are also fully applicable toward the Criminal Justice AAS degree for students who wish to go further in their studies.

SOCIAL SCIENCES (A.A.)

Purpose

The Social Sciences Program is designed for students who plan to transfer to a four year college or university in majors such as History, Political Science, Sociology, Anthropology, and Geography. Graduates often go on to pursue careers in fields such as law, government service, behavioral health, social science research, social work, and teaching. The types of possible careers for graduates are so varied that it is recommended that students consult their academic advisors, faculty and others frequently to explore opportunities. The Program is specific enough to help students begin to define themselves within a chosen major yet provides enough flexibility to permit them to meet transfer requirements of the colleges and universities to which they plan to transfer. Students should always check current transfer guidelines available in the Student Success Center when selecting courses.

Program Outcomes

A graduate should be able to:

- Explain research methods used in the Social Sciences and evaluate conclusions derived from that research
- Articulate how the principles of Disciplines within Social Sciences can be used to explain social issues, to promote civic engagement, to inform public policy, and to delineate a global perspective on human events.
- Apply knowledge (concepts, theories and research) of the Social Sciences to self assessment, to defining and solving problems in everyday life, and to formulating career goals.
- Describe similarities and differences in the experience of humans in diverse cultures and civilizations over time including the impact of major historical events, political and social structures, and geography.
- Summarize the ideas that are interdisciplinary (common to the Disciplines within the Social Sciences) and those which distinguish one Discipline from another.

Curriculum

FIRST SEMESTER

| | | |
|----------------|---|--------|
| ENG 101 | English Composition I |3 |
| HIS 101 | History of Western Civilization I Ancient Medieval and Early Modern |3 |
| MAT 106 or 103 | Math Applications or Foundation of Math |3 |

| | |
|--|---|
| FRE 101, FRE 102, GER 101, GER 102, ITA 101, ITA 102, SPA 101 | Foreign Language: Elementary French I, Elementary French II, Elementary German I, Elementary German II, Elementary Italian I, Elementary Italian II, Elementary Spanish I3 |
| PSY 101 | Introduction to Psychology3 |
| | (15 credit hours) |

SECOND SEMESTER

| | |
|--------------------|---|
| ENG 102 | English Composition II.....3 |
| HIS 102 | History of Western Civilization II3 |
| SOC 101 or ANT 104 | Intro to Sociology or Intro to Cultural Anthropology3 |
| Elective | Psychology Elective3 |
| PSY 206 or 215 | Human Development/Life-Span Ap or Abnormal Psychology3 |
| | (15 credit hours) |

THIRD SEMESTER

| | |
|--------------------|--|
| SPC 120 | Public Speaking3 |
| POL 124 | American National Gov3 |
| BIO 120 or BIO 121 | Core Goal 8: Physical and Life Sciences.....4 |
| MAT 131 | Introduction to Stat I3 |
| PSY 206 or PSY 215 | Abnormal Psychology Choose Remaining Psychology Elective (Human Development Life-Span Ap or Abnormal Psychology).....3 |
| | (16 credit hours) |

FOURTH SEMESTER

| | |
|---|--|
| Elective | Core Goal 4.....3 |
| Elective | Geography3 |
| ART 101, 102 Art History II, 103, 111 or ENG 221, 222 or MUS 110 | Elective: Art History I, Art History II, Art History III, Drawing I, Literature of the Western World I, Literature of the Western World II or Music Appreciation3 |
| Elective | Core Goal 7: Aesthetic Sensibility and the Arts3 |
| Elective | Core Goal 10: Exercise and Health Sciences..... 2-3 |
| | (14-15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60-61

Students planning to major in Geography (Urban and Regional Planning) or History may select a concentration.

Geography: Urban and Regional Planning Concentration

- First Semester – GEO 130 in place of HIS 102;
- First Semester – MAT 106, 140 or 190 for Mathematics elective
- First Semester – ARA 101, CHI 101, CHI 102, FRE 101, FRE 102, FRE 201, FRE 202, GER 101, GER 102, GER 201, GER 202, ITA 101, ITA 102, JPN 101, JPN 102, JPN 201, SPA 101, SPA 102, SPA 201, SPA 202 for Foreign Language elective
- Second Semester – SOC 103 in place of SOC 101
- Second Semester – GEO 135 in place of Elective
- Second Semester – HIS 102 instead of History Elective
- Second Semester – HIS 160 in place of Foreign Language Elective
- Third Semester – POL 125 in place of POL 101 or 124
- Third Semester – AST 120, BIO 121, BIO 151, CHE 121, CHE 151, PHY 120, PHY 121 or PHY 151 for Core Goal 8 Elective
- Third Semester – GEO 137 in place of Speech Elective
- Third Semester – GEO 210 in place of other Elective
- Fourth Semester – GEO 220 in place of Geography Elective
- Fourth Semester – GEO 238 in place of Computer Fluency Elective

- Fourth Semester – SPC 120 in place of free Elective; ARA 101, CHI 101, CHI 102, FRE 101, FRE 102, FRE 201, FRE 202, GER 101, GER 102, GER 201, GER 202, ITA 101, ITA 102, JPN 101, JPN 102, JPN 201, SPA 101, SPA 102, SPA 201, SPA 202 in place of Core Goal 7 Elective

History Concentration

- First Semester - HIS 101 or HIS 121 in place of HIS 102
- Second Semester – HIS 102 or HIS 122 in place of History elective
- First Semester – MAT 103, 106, 140 or 190 in place of MAT 106 or higher
- Second Semester – SOC 101 or ANT 101 in place of SOC 101
- Second Semester – HIS 203 in place of Elective
- Third Semester – SPC 120 in place of Speech Elective
- Third Semester – HIS 205 in place of ANT 104
- Third Semester Elective —Any History elective in place of open elective
- Third semester – BIO 121, CHE 121 or PHY 121 for Core Goal 8 Physical and Life Science course
- Fourth Semester – choose any History course in place of open elective
- Fourth Semester – GEO 110, GEO 130 or GEO 135 in place of Geography elective
- Fourth Semester – BIO 121, 122 CHE 121 or CHE 122 or PHY 121 or PHY 122 in place of Core Goal 7: Aesthetic Sensibility and the Arts course

PSYCHOLOGY (A.S.)

Purpose

The Psychology A.S. program is designed to prepare students for transfer to a four-year college or university as a psychology major. By integrating a broad spectrum of courses in psychology and other disciplines, the curriculum prepares students for continued study in preparation for advanced degrees and a variety of careers.

Program Outcomes

- Upon successful completion of this program, graduates will be able to:
- Evaluate research methods and conclusions derived from that research.
 - Apply psychological knowledge (concepts, theories, and research) to self-understanding and problem-solving.
 - Differentiate the contributions of culture, individual experience, physiology, and development that may influence human behavior and experience.
 - Apply the key assumptions of the major theoretical frameworks in psychology to the understanding of human behavior.

FIRST SEMESTER

| | |
|----------|--|
| ENG 101 | English composition I3 |
| HIS 101 | History of Western Civilization I3 |
| PSY 101 | Introduction to Psychology3 |
| MAT 106 | Math Applications3 |
| Elective | Core Goal 4: Computer Fluency3 |
| | (15 credit hours) |

SECOND SEMESTER

| | |
|-----------------------|--|
| ENG 102 | English composition II3 |
| HIS 102 | History of Western Civilization II3 |
| SOC 101 or ANT 104 | Introduction to Sociology or Cultural Anthropology 3 |
| PSY 206 | Human Development3 |
| Elective | PSY Elective3 |
| | (15 credit hours) |

THIRD SEMESTER

| | |
|---------|-------------------------------------|
| SPC 120 | Public Speaking3 |
| POL 124 | American National Government3 |

| | | |
|--------------------|---|-------------------|
| BIO 120 or BIO 121 | Concepts of Biology or General Biology I..... | 4 |
| MAT 131 | Introduction to Statistics | 3 |
| PSY 215 | Abnormal Psychology | 3 |
| | | (16 credit hours) |

FOURTH SEMESTER

| | | |
|----------|--|----------------------|
| PSY 231 | Research Methods in Psychology | 3 |
| Elective | PSY Elective | 3 |
| Elective | PSY Elective | 3 |
| Elective | Foreign Language* | 3 |
| Elective | Core Goal 10: Exercise and Health Sciences | 2-3 |
| | | (14-15 credit hours) |

TOTAL SEMESTER CREDIT HOURS: 60-61

* Foreign Language elective should be one approved as part of the Core curriculum.

PUBLIC SAFETY AND SERVICES NON-CREDIT COURSES

COMPUTERIZED NUMERIC CONTROLS (CNC) MACHINE OPERATOR CERTIFICATE

Purpose

This program is designed to develop the knowledge and skills used in today's advanced manufacturing facilities. It is designed to prepare students for an entry-level position in this high-demand field.

Primary Goals

Upon successful completion, students will be able to execute a series of automated machine operations to produce metal, wood, or plastic components.

Admission Guidelines

- Attainment of a level 4 in reading, math and locating information on the KeyTrain assessment exams.

Consideration for Certification

Students who successfully complete all modules online and hands-on will qualify for the CNC Machine Operator Certificate issued by Montgomery County Community College and the CNC Turning: Operations and CNC Milling: Operations certificates issued by the National Institute for Metalworking Skills (NIMS).

Articulation

At this time there is no articulation towards a credit degree.

EMERGENCY MEDICAL TECHNICIAN BASIC CERTIFICATION COURSE

Purpose

A course designed to familiarize students with emergency medical care. The standards for this course are as mandated by the Pennsylvania Department of Health, the American Heart Association, the US Department of Transportation and National Standard Curriculum for EMT.

Primary Goals

The Basic EMT curriculum is a core curriculum of minimum required information to prepare students to seek qualification as an Emergency Medical Technician. The curriculum is intended to prepare a medically competent EMT to operate in the field. Enrichment programs and continuing education will help fulfill other specific needs for the EMT's basic education.

Admission Guidelines

Students must meet the requirement listed in the Functional Position Description for the EMT as determined by the PA Department of Health. Minimum age to enter is 15; however, students must be 16 in order to take the practical and written exam. A criminal history background check and malpractice insurance is required. Pre-registration is required. Students are required to perform in the pre-hospital setting under the guide of a BLS preceptor.

Consideration for Certification

Students who successfully complete all modules of this training course, both academic and practical, and who demonstrate an acceptable level of attendance shall receive a certificate of completion from Montgomery County Community College and shall be eligible for certification as Emergency Medical Technicians under the auspices of the Pennsylvania Department of Health. Upon successful completion and PA DOH EMT certification, the pre-hospital provider will be able to perform patient assessments, spinal immobilization, patient assisted medications, CPR and use of the automated external defibrillator (AED).

Articulation

Students who have successfully obtained EMT certification who enroll in Montgomery County Community College Fire Science or Emergency Management Planning degree programs may be eligible for credit awards based upon the certification.

MUNICIPAL POLICE BASIC TRAINING CURRICULUM (ACT 120)

Purpose

Acting under authority of the Municipal Police Officers' Education and Training Commission, Montgomery County Community College is authorized to conduct classes under PA Act 120 in Municipal Police Officer Training. The Academy provides its cadets with a basic knowledge of social, legal, political, and ethical contexts under which police services are provided as well as the technical and physical competency to perform their duties in the Commonwealth of Pennsylvania. The purpose of the Police Academy program is to allow candidates to successfully complete the mandated state curriculum which, in turn, allows them to be tested and certified by the state as municipal police officers.

Primary Goals

Goals for the program include ensuring that the students are provided with a basic understanding of the social, political, legal and ethical contexts within which police services are provided to give students realistic career expectations as well as a legitimate and useful motivation for the development of a professional police career. The program provides the students with the technical competency to perform the duties of a police officer in the Commonwealth of Pennsylvania to an acceptable level within standard professional norms.

Admission Guidelines

Admission to this training is open to sworn and unsworn personnel seeking a career in law enforcement. However, admission is contingent on the satisfactory results of a screening process. The screening process includes, and is not limited to, the following requirements: high school diploma or GED, psychological testing, criminal history background investigation, vocabulary and reading comprehension testing. Students must be eighteen years of age and pass a medical examination and pre-entrance physical fitness test.

Consideration for Certification

Certification is through the Municipal Police Officers' Education and Training Commission and is only granted after a student successfully completes the academy curriculum and the certification test that is administered by the Commission.

Articulation

Students successfully completing Act 120 training and who enroll in Montgomery County Community College's Criminal Justice Program may be eligible to receive up to 15 academic credits toward the completion of the Associate Degree program in Criminal Justice.

PARAMEDIC CERTIFICATION COURSE

Purpose

A course designed to familiarize the students with advanced life support. This course follows the National Standard Curriculum for training Advanced Life Support Technicians and prepares technically competent EMT-P's for State Paramedic certification.

Primary Goals

The course is made up of didactic, lab and clinical rotations. Goals for the course include developing the knowledge and skills involved with

the administration of fluids intravenously, peripheral venipuncture, IM injections, preparation of drugs for subcutaneous IM and IV injections, endotracheal suctioning, establishing and maintaining an airway by endotracheal intubation and monitoring cardiac activity.

Admission Guidelines

Students must be current PA EMT's, have current CPR certification and have sponsorship from an ambulance company with letter of recommendation. A criminal history background check and malpractice insurance is required. Insurance can be purchased under a group rate. Pre-registration is required. Interviews will be conducted as well as reading and math testing. Enrollment is limited to 30 students. Students must be 18 years of age and have one year of experience as EMTs.

Consideration for Certification

Students who successfully complete all segments of this training course, both academic and practical, and who demonstrate an acceptable level of attendance shall be eligible for certification as Paramedics under the auspices of Pennsylvania Department of Health and shall be awarded a certificate of completion by Montgomery County Community College upon successful completion of the course. Upon successful completion of the 1500-hour course and completion of clinical and field internship, the student will be eligible for the National Registry Practical and written test and PA DOH State certification.

Articulation

Students successfully completing the training may also be eligible to receive academic credits toward the Technical Studies degree program.

NOTARY PUBLIC TRAINING AND RENEWAL

Purpose

The College is one of only two colleges in the Commonwealth of Pennsylvania that is approved and authorized by the Department of State to provide a Notary Public Training Course. The course covers the powers, duties, and obligations of being a Notary in Pennsylvania and satisfies the requirement for new applicants and for renewal. This course satisfies the requirements of proof of completion of the three-hour state-approved notary public course. This course has been approved by the Supreme Court of Pennsylvania for 3 Continuing Legal Education credits.

Primary Goals

Upon completion of this course, students will be capable of fulfilling the powers, duties, and obligations of being a Notary in Pennsylvania.

Consideration for Certification

Upon successful completion a certificate of completion is issued by the College.

Articulation

At this time there is no articulation towards a credit degree.

NOTARY SIGNING AGENT TRAINING

Purpose

The College is one of only two colleges in the Commonwealth of Pennsylvania that is approved and authorized by the Department of State to provide a Notary Public Training Course. Notary Signing Agents are currently commissioned Notaries Public with specialized training to assist in the closing of real estate transactions. This course has been approved by the Supreme Court of Pennsylvania for 3.5 Continuing Legal Education credits.

Primary Goals

Upon completion of this course, students will know how loan and escrow processes work; comprehend what lenders and borrowers expect from a signing agent; be able to demonstrate step-by-step procedures for executing loan documents.

Admission Guidelines

You do not need to be a Notary Public to register for this class, but you will need to complete the Notary Public Training and Renewal class in order to practice as a notary signing agent.

Consideration for Certification

Upon successful completion a certificate of completion is issued by the College.

Articulation

At this time there is no articulation towards a credit degree.

For a complete listing of programs including courses for continuing education credit, prep courses, and industry certification and licenses, go to www.mc3.edu/continuingEducation.

COURSE DESCRIPTIONS

Insofar as possible, all courses offered by the College during the 2015-16 semesters are described on the following pages. However, since the College is responsive to the actual needs of its students, some listed courses may not be offered if there is insufficient enrollment; others may be added at the discretion of the Vice-President of Academic Affairs and Provost if requested by a sufficient number of students. Courses are listed by code and number under departmental headings; courses under 100 are developmental courses, and course hours are not credited toward a degree. In some instances, students will be advised to enroll in such fundamental courses. Students are cautioned to pay particular attention to the pre-requisites needed for enrollment in certain advanced courses. Unless the Pre-requisite(s) for these courses have been fulfilled, students will not be permitted to register for the courses. The following letter code, along with a number, is used by the College to designate course descriptions.

ACC - ACCOUNTING
ANT - ANTHROPOLOGY
ARA - ARABIC
ART - ART/COMPUTER GRAPHICS
AST - ASTRONOMY
BIO - BIOLOGY
BIT - BIOTECHNOLOGY
CHE - CHEMISTRY
CHI - CHINESE
CIS - COMPUTER AND INFORMATION SYSTEMS
CJS - CRIMINAL JUSTICE
COM - COMMUNICATION
COU - COUNSELING
CUL - CULINARY ARTS
DAN - DANCE
DHG - DENTAL HYGIENE
ECO - ECONOMICS AND FINANCE
EDU - EDUCATION
EGR - ENGINEERING SCIENCES
EGT - ENGINEERING TECHNOLOGY
EMP - EMERGENCY MANAGEMENT AND PLANNING
ENG - ENGLISH
ETP - ENTREPRENEURSHIP
ESC - NANOFABRICATION
ESL - ENGLISH AS A SECOND LANGUAGE
ESW - EXERCISE SCIENCE AND WELLNESS
FRE - FRENCH
FSC - FIRE SCIENCE
GLG - GEOLOGY
GEO - GEOGRAPHY
GER - GERMAN
HCP - HEALTH CARE PROFESSIONS
HIS - HISTORY
HON - HONORS

HOS - HOSPITALITY MANAGEMENT
HSW - HUMAN SERVICES
IDS - INTERDISCIPLINARY STUDIES
ITA - ITALIAN
JPN - JAPANESE
MAS - MEDICAL ASSISTING
MAT - MATHEMATICS
MGT - MANAGEMENT
MKT - MARKETING
MLT - MEDICAL LABORATORY TECHNICIAN
MUS - MUSIC
NUR - NURSING
OFM - OFFICE MANAGEMENT
PHI - PHILOSOPHY
PHY - PHYSICS
POL - POLITICAL SCIENCE
PSY - PSYCHOLOGY
RAD - RADIOGRAPHY
REA - READING/STUDY SKILLS
RES - REAL ESTATE
SCS - STRATEGIES FOR COLLEGE SUCCESS
SOC - SOCIOLOGY
SPA - SPANISH
SPC - SPEECH
SRT - SOUND RECORDING MUSIC TECHNOLOGY
SUR - SURGICAL TECHNOLOGY
THA - THEATRE

PREREQUISITES*

A Prerequisite is a condition or requirement which must be met before enrolling in a course. Students are not permitted to enroll in a course without first satisfying the Prerequisite(s). Courses requiring Prerequisite(s) are so noted in the College Catalog and course schedules. Requests for the waiver of Prerequisites are considered by Division Deans

* While the College ensures that all students registering for courses satisfy Prerequisites, it is the student's ultimate responsibility to ensure Prerequisites are met. The College reserves the right to de-register students that are inappropriately registered for courses in which Prerequisites are not met. All students are therefore encouraged to speak with an advisor prior to registration.

CO-REQUISITES**

A Co-requisite is a condition or requirement—usually another College course—which must be met while enrolling in a course.

** The registration system does not monitor whether students enroll for Co-requisites. It is the responsibility of the student to be aware of any Co-requisite coursework, and register accordingly.

COURSE CREDIT NUMBERING

The three numbers following (to the right) of the course titles indicate: (a) the credit hours for the course, (b) the hours per week the class meets, and (c) the number of laboratory hours per week. For example, CHE 121 General Chemistry I, 4-3-3 has four hours credit, three hours of lecture and three hours of laboratory per week during a semester.

ACCOUNTING

ACC 105 SURVEY OF ACCOUNTING3-3-0

Students will develop an understanding of the basic concepts and processes of financial and managerial accounting. Students will learn to interpret accounting information and reports from the perspective of managers, investors, and other business stakeholders.

(Business majors planning to transfer may not substitute this course for ACC 115 - Financial Accounting, or ACC 116 - Managerial Accounting.)

Prerequisite: Students must have successfully completed or tested out of REA 017 or REA 011

ACC 110 BUSINESS MATHEMATICS.....3-3-0

This course is designed for business non-transfer students. Students will expand literacy and skills in business mathematical topics such as bank reconciliations, equations, trade and cash discounts, simple and compound interest, present value, mortgages, stocks, and business statistics.

Prerequisite(s): Successfully complete or test out of MAT 011 with a grade of "C" or better

ACC 115 FINANCIAL ACCOUNTING.....4-4-0

Students will develop literacy and skills in the application of the basic principles of financial accounting including accounting principles and practices, accounting journals and ledgers for recording business transactions, and application of the accounting cycle for service and merchandising enterprises from analysis of business transactions through preparation and evaluation of the income statement, balance sheet and statement of cash flows.

Prerequisite(s): Students must have successfully completed or tested out of developmental courses.

ACC 116 MANAGERIAL ACCOUNTING3-3-0

Students will develop literacy and skills in the application of the basic principles of managerial accounting including the preparation of manufacturing financial statements. Students will apply various costing systems including job order, process, activity based and variable costing, cost-volume-profit analysis, budgeting, and management decision making.

Prerequisite(s): ACC 115 – Financial Accounting with a minimum grade of "C"

ACC 117 PAYROLL ACCOUNTING3-3-0

Students will develop literacy and skills in the application of the principles of payroll accounting including the calculation of salaries and wages, federal, state, Social Security, Medicare and unemployment taxes including matching employer taxes. Students will prepare the necessary payroll entries and produce quarterly and year-end tax returns. This course is designed to prepare students to pass the national certification exam and to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.

Prerequisite(s): ACC 115-Financial Accounting with a grade of "C" or higher

ACC 118 PROFESSIONAL BOOKKEEPING.....3-3-0

Students will expand literacy and skills in the application of the basic principles covered in Financial Accounting (ACC115). Course topics include and emphasis is placed on the specialized applications of the principles of financial accounting including adjusting journal entries, depreciation, inventory cost flow methods, correction of accounting errors, internal controls and fraud prevention. As part of this course students will take the national certification exam to obtain the American Institute of Professional Bookkeepers' (AIPB) Certified Bookkeeper (CB) designation.

Prerequisite(s): ACC 115-Financial Accounting with a grade of "C" or higher

Co-requisite(s): ACC 117-Payroll Accounting

ACC 120 FORENSIC ACCOUNTING.....3-3-0

Forensic Accounting is the application of accounting methods and financial techniques to assist in the adjudication of legal disputes and the solving of financial crimes. The course includes the discussion of criminal statutes relating to financial crimes, fraud detection, investigation, and prevention, techniques used in solving financial crimes, interviewing, rules of evidence, sources of information, forensic accounting procedures, money laundering, embezzlement, bankruptcy fraud and criminal conspiracy. (Also offered as CJS 120)

Prerequisite: ACC 115 with a minimum grade of C

ACC 150 THE LEGAL ENVIRONMENT OF BUSINESS3-3-0

Students study the regulatory environment in which business operates and the political, social, and economic forces behind and evolution of the forms and types of law that govern disputes and transactions between individuals (including business organizations). The Constitutional foundation of law and the role played by administrative agencies in regulating business activity are studied including remedies in and out of court. Issues of crimes, torts, contracts, property, business organizations, consumer rights, employment, intellectual property rights, and international transactions will be discussed. (Core Goal 13)

ACC 151 BUSINESS LAW I3-3-0

Students learn the basic principles of contract law including the nature and classes of contracts, contractual capacity, consideration, the form of the contract, discharge of contracts and breaches of contract and remedies. The legal principles concerning personal property, bailments and the form of the sales contract, circumstances in which contracts for the sale of goods must be in writing, and the points of difference between general contract law and the law of sales will be examined.

Prerequisites: Students must have successfully completed or tested out of ENG 011 or ESL 011 and MAT 010 and REA 011 or REA 017.

ACC 152 Business Law II...3-3-0

This course is designed to provide the student with a continuation of the basic principles covered in Business Law I. Course topics include and emphasis is placed on the specialized applications of negotiable instruments, agency, forms of business organizations, real property, credit and bankruptcy issues.

Prerequisite: ACC 151

ACC 198 CO-OP INTERNSHIP IN ACCOUNTING I..... 3-0-15

This course consists of employment in a college-approved organization to enable the student to gain insight into an accounting organization. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.

Prerequisites: ACC 116 Managerial Accounting, and permission of the coordinator

ACC 211 INTERMEDIATE ACCOUNTING I3-3-0

Students will learn Generally Accepted Accounting Principles as applied to current and non-current assets, fixed assets (property, plant & equipment), intangible assets, and related income statement accounts (i.e. bad debt expense, cost of sale, depreciation expense, and amortization expense) and the time value of money.

Prerequisite: ACC 116* with a minimum grade of C

*ACC 112 with a minimum grade of C may be substituted

ACC 212 INTERMEDIATE ACCOUNTING II3-3-0

Students will learn Generally Accepted Accounting Principles as applied to recording and reporting: current and long-term liabilities, stockholders' equity and earnings per share, investments, revenue recognition, income taxes, pensions and post-retirement benefits, leases, and accounting changes. Students will also construct the cash flow statement (direct method using full disclosure financial reporting).
Prerequisite: ACC 211 with a minimum grade of C

ACC 221 ACCOUNTING INFORMATION SYSTEMS3-3-0

Students learn the principles of accounting information systems. Students will document business processes, reviewing source documents, information processing, and reports generated. The principles of internal control will be applied to business systems and information technology. In a hands-on environment, students will learn the design and function of a computerized accounting information system. Using QuickBooks accounting software, students will create a company file, enter transaction data, generate management reports and financial statements, and complete the year-end closing process. This course is designed to prepare students to pass the Intuit QuickBooks Certified User exam.

Prerequisite(s): CC 116* with a minimum grade of C and

CIS 110 Management Information Systems

*ACC 112 with a minimum grade of C may be substituted

ACC 230 COST ACCOUNTING3-3-0

Students study the accounting concepts and reports needed by managers to plan operations, control activities, and make decisions. Students learn what kind of information is needed, where this information can be obtained, and how to present this information for use by managers in a variety of reporting formats. Included in the course are cost behavior and Cost-Volume-Profit analysis, job-order, process, activity-based, and variable cost accounting systems, budgeting, standard costs and variances, responsibility accounting, incremental analysis, and capital budgeting.

Prerequisite: ACC 116* with a minimum grade of C

*ACC 112 with a minimum grade of C may be substituted

ACC 241 TAX ACCOUNTING3-3-0

Students learn the laws, regulations, and accounting practices pertaining to individual Federal taxes. Students will analyze gross income, exclusions, business expenses, depreciation, itemized deductions, capital gains, sales of personal residences, exemptions, and filing status. Relevant forms will be discussed.

Prerequisite: ACC 116* with a minimum grade of C

*ACC 112 with a minimum grade of C may be substituted

ACC 242 FEDERAL CORPORATE TAXATION3-3-0

Students study the laws and regulations relating to federal taxation of corporations and other entities including an analysis of corporate distributions, S corporations, partnerships, estates, trusts, and retirement plans.

Prerequisite: ACC 241

ACC 251 AUDITING I3-3-0

Students will study the conceptual and applied aspects of auditing, current auditing standards, professional ethics, regulation, and legal liability inherent in the attest function. The evaluation and study of internal control, the nature of evidence, the use of statistical sampling and computers in the auditing process will be explored. Audit planning and documentation are practiced.

Prerequisite: ACC 116* with a minimum grade of C

*ACC 112 with a minimum grade of C may be substituted

ACC 252 AUDITING II.3-3-0

Students will apply auditing techniques in gathering evidence to support an audit report. Audit procedures will be applied to transaction cycles such as sales/cash receipts, acquisition/payment, payroll/personnel, inventory/warehouse, and capital acquisition/repayment. Statistical sampling approaches will be applied to the data in the transaction cycles and the composition of the account balances. Cash and other balance sheet accounts are studied. Completion of the audit process includes review of contingent liabilities, subsequent events, financial statement presentation and disclosures. Other assurances rendered by an auditor are discussed including compilations, reviews, operational audits, and governmental financial audits.

Note: ACC 251 and ACC 252 combined cover the scope of the Auditing section of the CPA exam.

Prerequisite: ACC 251 with a minimum grade of C

ACC 261 ADVANCED ACCOUNTING I3-3-0

Students will learn how to record and report transactions for corporations with separate divisions or subsidiaries, or for inter-company transactions, and then how to consolidate these separate entities into one set of financial statements. Also, students will record and report international transactions (including hedge accounting), and then consolidate the international subsidiaries with the parent firm's financial statements. Students will apply the financial reporting requirements of the Securities and Exchange Commission and the FASB's requirements for interim and segment reporting.

Prerequisite: ACC 212 with a minimum grade of C

ACC 262 ADVANCED ACCOUNTING II3-3-0

Students will learn to account for partnerships, state and local governments, private "not-for-profit" organizations, legal reorganizations, and estates and trusts.

Prerequisite: ACC 261 with a minimum grade of C

ACC 298 CO-OP INTERNSHIP IN ACCOUNTING II.....3-0-15

This course consists of continued employment in a college-approved organization to enable the student to gain insight into an accounting organization. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.

Prerequisites: ACC 198 and permission of the coordinator

ANTHROPOLOGY

ANT 100 INTRODUCTION TO PHYSICAL ANTHROPOLOGY3-3-0

This course explores the evolutionary emergence of man, and the implications and characteristics of human physical diversity as a basis for an understanding of man as a physical organism.

(Core Goals 2 and 9)

ANT 101 INTRODUCTION TO ARCHEOLOGY3-3-0

This course examines the theory and history of archaeological methods in the field of professional archaeology. A primary objective of the course is to foster an understanding of humanity's common cultural heritage and the shared responsibility people all have in understanding and preserving this cultural heritage. Students will investigate the advent of agriculture and the formation of cities and states and explore a comprehensive overview of prehistoric societies from Asia to the Americas.

(Core Goals 9, 11, and 12)

Prerequisite(s): Students must have successfully tested out of/or completed ESL 011 or ENG 011, and ESL 017 or REA 011 with a grade of "C" or better.

ANT 104 INTRODUCTION TO CULTURAL ANTHROPOLOGY ...3-3-0

This course examines the unique nature of culture and its role in the determination of human behavior. It also explores the relationship of kinship, political, economic, religious, and other institutions within cultural systems, with a particular emphasis upon the operation of these institutions in non-Western societies.

(Core Goals 9, 11, 12 and 13)

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

ANT 120 ARCHAEOLOGY FIELD SCHOOL3-0-40

In this course students will participate in an archaeological research project. They will gain hands-on experience in archaeological methods, learn about research design, and develop their analytical skills through the collection, recording, and interpretation of diverse kinds of data. Civic engagement is an important aspect of this course as it involves partnerships with local organizations and community members. Students will be interpreting their findings and sharing them with members of the research team and the general public. This is a three week intensive field school that will meet 5 days a week for 8 hours a day (120 hours total). There will be additional, optional opportunities for field trips and special lectures.

ANT 121 ARCHAEOLOGY FIELD SCHOOL II3-0-40

This course is a continuation of ANT 120 Archaeology Field School. In this course students will participate in an archaeological research project. They will gain hands-on experience in archaeological methods and apply research and analytical skills through the collection, recording, and interpretation of diverse kinds of data. Emphasis will be placed on processing, curating, and analyzing archaeological data. Civic engagement is an important aspect of this course as it involves partnerships with local organizations and community members. Students will be interpreting their findings and sharing them with members of the research team and the general public. This is a three week intensive field school that will meet 5 days a week for 8 hours a day (120 hours total). There will be additional, optional opportunities for field trips and special lectures.

Prerequisite(s): Completion of ANT 120 or permission of the instructor

ARABIC

ARA 101 ELEMENTARY ARABIC I3-3-0

Elementary Arabic I is an introduction to the Arabic language. Students will learn how to construct basic phrases, elementary communication, and an introduction to the script, and focus on pronunciation. Students will encounter elements of the culture of the Arabic-speaking world.

Prerequisites: Students must have successfully completed or tested out of REA 011, REA 017, ENG 011 or ESL 011. (Core Goal 12)

ARA 102 ELEMENTARY ARABIC II3-3-0

Elementary Arabic II is a continuation of Elementary Arabic I. Students will continue to study the basic language structures with emphasis on the usage of present, past and future verb tenses. The course will use a proficiency-oriented approach using the four skills: speaking, listening, reading and writing using the Arabic language.

Prerequisites: ARA 101 (Core Goal 12)

ART

ART 101 ART HISTORY I

(CAVE PAINTING TO RENAISSANCE)3-3-0

A survey of Western visual arts and architecture from the earliest examples of cave painting and sculpture to the beginning of the Renaissance in Europe in the 15th century. Masterworks in painting, sculpture and architecture are examined as individual aesthetic works and in relationship to their historical and social contexts. Comparative study of diverse civilizations will be explored through the works of great visual artists and architects offering students a broader perspective of human experience throughout the historical periods covered.

Prerequisite: Students must have successfully completed or tested out of ENG 011 or ESL 011 and REA 017. Core Goals 6, 7 and 12)

ART 102 ART HISTORY II

(RENAISSANCE TO POST IMPRESSIONISM)3-3-0

A survey of Western visual arts and architecture from Renaissance to the industrial Revolution. Significant individual artists will be studied and their works will be examined both aesthetically and in relationship to the historical and social contexts in which they were created. Comparative study of diverse cultural and societal conditions will be examined through the works of great visual artists and architects offering students a broader perspective of human experience throughout the historical periods covered.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

(Core Goals 6, 7 and 12)

ART 103 ART HISTORY III (MODERN ART)3-3-0

An investigation of modern change and diversity as reflected in the art and architecture of Europe and America from the Industrial Revolution to the present. The response of artists to new technologies and the advancement of mass media will be examined both aesthetically and in relationship to the historical, social, and technological contexts in which they were created. Post-Impressionism, Fauvism, Cubism, Constructivism, Dada, Surrealism, Abstract Expressionism, Pot Part, Minimalism, and Neo-Expressionism are among the styles addressed in the course. Comparative study of evolving social contexts will be examined through individual works and artists offering student a broader perspective of human experience throughout Industrial, Post-Industrial and Information Ages.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

(Core Goals 6, 7 and 12)

ART 104 HISTORY OF GRAPHIC DESIGN.....3-2-0

A survey of visual communication from the earliest written language through contemporary graphic design. Emphasis will be placed on the developments in design from the Industrial Revolution to the present. Modern graphic design in mass communication will be examined in relation to the broader cultural, social, and technological contexts in which they were created. The Arts and Crafts movement, Are Nouveau, Bauhaus, deStijl and Constructivism, Art Deco, and Post-Modernism will be covered. Comparative study of graphic design in relation to the arts and other manifestations of human intellectual achievement in the rapidly changing social and technological landscape of the twentieth century will be examined.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

ART 105 FILM HISTORY: "THE SILENT ERA"3-3-0

This course traces the Silent Cinema from its birth in the 19th century to the introduction of sound in the late 1920's. Topics covered include early experiments in motion photography, the emergence of the nickelodeons, the first film studios on the East Coast, the "star system," the "Movie Palaces" of the twenties, the emergence of Hollywood, and the impact movies had on the collective beliefs of twentieth century Americans. The course will also investigate the growth of Film as a new form of Modern Art, and the use of motion pictures as a vehicle for propaganda. Films studied include The Birth of a Nation, The Cabinet of Dr. Caligari, Metropolis, Ben Hur, The Sheik, The Jazz Singer, and the first film to win an Oscar – Wings.

ART 107 NON-WESTERN ART3-3-0

This course is a survey of the artistic styles of Non-Western Art. Painting, sculpture and architecture are studied as individual works and in historical, social, geographical and religious contexts in which they were created including Buddhist and Hindu Art from China, India, Java, Japan and Korea, and the Arts of the Islamic World, Africa and the Americas.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

ART 108 HISTORY OF PHOTOGRAPHY3-3-0

This course is an introduction to the history of photography. The course will cover the technical beginnings of Photography through its maturity into a medium of artistic and personal expression. Photography's transformation into a digital medium will also be presented. Key historical movements and aesthetic theories will be presented and discussed using key works from photographers active in each time period. Students will also research and present papers exploring key historical concepts and individual photographers. Lecture, class discussion, and technical demonstrations.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

ART 111 DRAWING I3-2-2

An introduction to drawing in a variety of media including charcoal, conté crayon, pencil, and ink. Students will draw a variety of subjects including still life, landscapes and life models. Emphasis will be placed on developing an understanding of developing line and tone, composition, gesture, anatomy, basic perspective, and other perceptual concepts. Studio work will be augmented by critiques, discussions, and demonstrations.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

(Core Goals 2, 7 and 12)

ART 112 DRAWING II3-2-2

A study of drawing in different media stressing draftsmanship and creative interpretation. Special emphasis will be placed on understanding the figure. In addition to studio work, group discussions and critiques will be provided.

Prerequisite: ART 111 or permission of the instructor.

ART 121 PAINTING I3-2-2

An introduction to painting. Students will paint a variety of subjects utilizing representation and abstraction. Emphasis will be placed on developing an understanding of the physical properties of paint and its mediums, application techniques, and color mixing. Students will develop an understanding of line and tone, composition, perspective, and other perceptual concepts. Studio work will be augmented by critiques, discussions, and demonstrations.

(Core Goals 2, 7 and 12)

ART 122 PAINTING II3-2-2

An intensive study of the use of oil and/or acrylics in painting from still life, landscape and figure. In addition to studio work there will be demonstrations, group discussions and critiques.

Prerequisite: ART 121 or permission of the instructor.

ART 130 TWO-DIMENSIONAL DESIGN PRINCIPLES3-2-2

An introduction to a wide range of artistic concepts and the efficient and practical use of materials. The course is intended to develop practical patterns for solving two-dimensional problems. Lectures, demonstrations, and studio work.

ART 131 COLOR THEORY3-2-2

This course is an exploration of the physical and psychological properties of color. Students will develop a foundation for working with color as a means of expression. Students will build a color vocabulary and investigate the use of color as a visual element of communication. Creative problem-solving through conceptualization, research, technical execution and presentation will be emphasized.

Prerequisite: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

ART 130 or permission of the instructor.

ART 135 TYPOGRAPHY3-2-2

A study of the fine art and craft of typography. Students will explore the history and evolution of type, noted typographers, the shape and function of letterforms, and letters, words and sentences as an integral element of communication and graphic design problem solving.

Prerequisite: ART 148 or permission of the instructor. Students must also have successfully completed or tested out of ENG 011, ESL, 017, and REA 011

ART 138 DIGITAL ART I3-2-2

An introduction to imaging techniques intended for fine arts majors who wish to expand the scope of their work. Students will become familiar with a broad range of software applications and techniques. The fundamentals of computer-based imaging will be explored, challenging the students' imagination and expanding creative skills.

Prerequisites: ART 111, ART 130 or permission of the instructor.

ART 139 DIGITAL IMAGING II.....3-2-2

This course serves as an advanced course in digital imaging for fine artists. Students will work on creating digital images for both print and electronic media. Emphasis will be placed on creating high-end Giclée prints using a variety of professional output options and media. Students who complete this course will develop a portfolio of work demonstrating a working knowledge of the perceptual skills and techniques addressed in the studio.

Prerequisites: ART 138 or permission of instructor

ART 140 3-D PAGE LAYOUT AND DESIGN3-2-2

Study of the elements and principles of designing three-dimensional forms in space. The course is intended to develop the conceptual skills related to three-dimensional thinking and the ability to produce creative and practical solutions used in resolving three-dimensional problems encountered in sculpture. Creative problem-solving through conceptualization, research, technical execution and presentation will be emphasized.

Prerequisite: ART 130 - Two Dimensional Design, or permission of the instructor

ART 141 3-D DESIGN/MATERIALS AND TECHNIQUES3-2-2

The study of 3-D concepts, techniques and structure as it relates to the manipulation of various three-dimensional materials. Students will be introduced to a variety of materials and tools. Emphasis will be placed on craftsmanship, the safe operation of tools and equipment and the

development of a sculptural sensibility.
Prerequisite: ART 140 or permission of the instructor.

ART 145 INTRODUCTORY WOODWORKING3-2-2

This introductory course will begin by looking at the medium as a biologic and non-static material. Students will be given a series of projects designed to aid in learning a safe approach to woodworking. Throughout the semester students will learn through readings, hands-on learning and instructor demonstrations. Assignments will include one- day material experimentation periods, carving and shaping exercises, surface treatment techniques and construction through the use of traditional joinery. In conjunction with the skill set of woodworking, students will be introduced to historic and contemporary design issues concerning woodworking and its placement within Craft as well as Fine Arts. Through the course's intent to combine concept with handwork, students will develop a new means of material expression. With the knowledge and skills acquired, students will be able to safely incorporate woodworking into their creative processes and better understand and achieve their goals, expectations and intentions as artists when using the medium of wood.

Prerequisites: Students must also have successfully completed or tested out of ENG 011, ESL 017, and REA 011.

ART 148 GRAPHIC DESIGN APPLICATIONS3-2-2

Introduces students to the latest versions of leading software applications used in the field of graphic design. Students will create and manipulate images and text. Students will learn the benefits of different file formats and their applications in print and electronic media.

ART 149 PAGE LAYOUT AND DESIGN.....3-2-2

A comprehensive course focusing on the exploration and management of text in specific design problems with a concentration on the grid, visual hierarchy, legibility and clarity of conceptual communication. Special emphasis will be placed on the complex interplay of visual meaning and form, style, and readability of typographic treatments.

Prerequisites: ART 135, ART 148 or permission of instructor.

ART 151 BASIC PHOTOGRAPHY (PHOTOGRAPHY I)3-2-2

This is a basic course in black and white still photography. The photographic process, from exposing and developing film to making and mounting the print for presentation, will be taught. The camera will be used to explore and discover the visual world; with the goal of using the photographic image as a means of expression. Information obtained in this course can be applied to all branches of photography. Students must supply their own adjustable camera and lens, film, photographic paper and some miscellaneous items.

ART 152 PHOTOGRAPHY II3-2-2

This course emphasizes the development of a "critical eye" and the use of photography as a form of self-expression. Advanced camera, darkroom, and editing techniques will be explored. Individual projects will be pursued to develop a cohesive visual idea.

Prerequisite: ART 151 or permission of instructor.

ART 155 DIGITAL PHOTOGRAPHY I3-3-0

An introduction to digital photography and the techniques of computer-based photographic manipulation. This studio course will stress the relationship between traditional photography and darkroom techniques, and the use of imaging software and development of animation and multimedia techniques while also incorporating work in traditional media. Advanced computer-based imaging will be explored while challenging the students' imagination and expanding their creative skills.

Prerequisites: Students must also have successfully completed or tested out of ENG 011, or ESL, 011, and REA 017

ART 156 DIGITAL PHOTOGRAPHY II3-3-0

Students create new photographic works in a digital environment, developing effective and nondestructive workflows for image editing, sorting, and organizing. Students will learn advanced digital retouching techniques and explore the capabilities of the electronic darkroom. Investigating creative and technical skills such as Camera RAW processing, students will acquire skills in advanced tonal and color correcting, and local image adjustments using selection and masking techniques. Studio lighting for portraits and commercial product photography will also be addressed.

Prerequisites: Students must have successfully completed or tested out of ENG011, ESL011, REA 017, REA 011.

ART 161 CERAMICS I3-3-2

An introduction to the historical, cultural, scientific, creative, and expressive basis of ceramics. Students will learn various construction and decorative techniques used in the hand forming of stoneware clay through a series of assignments and exercises designed to develop each student's potential for personal expression and creativity.

(Core Goals 2, 7 and 12)

ART 171 PRINTMAKING I3-2-2

An introduction to printmaking techniques including woodcut, relief, etching and lithography. Studio work and instruction in a variety of techniques with an emphasis on developing an understanding of plate making and fine art printing. Studio work will be augmented by critiques, discussions and demonstration.

(Core Goals 2, 7 and 12)

ART 190 CAREER STRATEGIES FOR THE ARTIST.3-3-0

Career Strategies for the Artist will provide students with practical information about building a career in the arts. Students will learn skills that will enable them to better market, manage and promote themselves and their art, whether it be working in-house for a company or starting their own freelance business. Topics include: career opportunities, portfolio presentation, copyright for print and the web, submitting artwork to galleries, licensing your artwork and more. Students will be able to identify and work towards professional goals in an art career. Throughout the semester students will also explore various professions and business practices within the arts.

Recommended but not required: completion of at least one art studio course. Prerequisites: Students must have successfully completed or tested out of ENG011 or ESL011 and REA 017.

ART 197 IND STUDY IN ART I LEVEL I3-3-0

ART 198 IND STUDY IN ART II LEVEL I3-3-0

ART 199 IND STUDY IN ART III LEVEL I3-0-6

ART 201 ILLUSTRATION I3-2-2

A special study in illustration techniques intended to develop both the drawing and design skills needed to work in commercial art. Students will become familiar with a wide range of materials and techniques. The fundamentals of illustration will be explored while challenging the students' imagination and expanding their creative skills.

Prerequisite: ART 111 or ART 130 or permission of the instructor.

ART 202 ILLUSTRATION II3-2-2

A special study in advanced illustration techniques intended to develop both the drawing and design skills necessary to compete in this highly competitive field. Students will become familiar with a wide range of materials and techniques used by professional illustrators. The many dimensions of illustration will be explored while challenging the imagination and creative skills of the student.

Prerequisite: ART 111, ART 130, ART 201 or permission of the instructor.

ART 211 DRAWING III3-2-2

A comprehensive study in the art of color drawing. A variety of media will be used to explore color in various drawing situations, including figure drawing, portraiture, still life, landscape and non-figurative works.

Prerequisite: ART 111 and ART 112 or permission of the instructor.

ART 213 PASTELS3-3-0

This course is designed to introduce students to the medium of pastel with a strong focus on color theory. There will be demonstrations on techniques and discussions on various types of pastels and pastel papers that can be employed by the artist in realizing his/her vision. This course will concentrate on the fundamentals of art, such as composition, with an emphasis on self-expression.

Prerequisite: ART 112, ART 130 or permission of instructor.

ART 221 PAINTING III3-2-2

A continuation of Painting II emphasizing creativity and experimentation in solving a variety of advanced problems. Extensive studio work.

Prerequisite: ART 121, ART 122 or permission of the instructor.

ART 222 WATERCOLOR PAINTING3-2-2

An introduction to Watercolor, this course has been designed to focus on the basic technical aspects of Watercolor, including the study of color as it applies to this medium. Course work will include exercises in color layering, and the various techniques of application. Once a solid foundation of skills is established, students will work from still life setups and landscape subjects. Emphasis will be placed on composition as well as individual expression.

Prerequisite: ART 111

ART 224 PAINTING IN THE LANDSCAPE.....3-3-0

A course designed to provide the student with the opportunity to experience the joy of plein air painting, whether it is urban, suburban or rural landscape. Working directly with the instructor, the student will learn to enjoy the sights, sounds and smells that contribute to the overall appreciation of the subject landscape.

Prerequisite: ART 121 or permission of instructor

ART 231 GRAPHIC DESIGN I3-2-2

Explorations in the art of visual communication. Students will learn to communicate effectively and creatively using type and image to solve real-world communications problems. This class will use the latest versions of graphic design software applications and incoming students are expected to have a working knowledge of these programs.

Prerequisites: ART 130, ART 135, ART 148, ART149 or permission of the instructor.

ART 232 GRAPHIC DESIGN II3-2-2

Advanced problems in Graphic Design with an emphasis placed on developing an understanding of the production process. Projects will include developing corporate and product identity, packaging poster design and book design.

Prerequisites: ART 135, ART 148, ART 149, ART 231 or permission of the division.

ART 233 VISUAL DESIGN FOR THE WORLD WIDE WEB3-2-2

An introduction to the visual design of web pages and imaging techniques specific to web-based technologies. A broad range of software applications used in building visually dynamic web pages will be addressed with an emphasis on the latest versions of Macromedia Dreamweaver and Flash. The methods and techniques of computer - based imaging and animation for the web will be explored while challenging the students' imagination. Emphasis will be placed on applying the fundamental principles of visual design to building a web page.

Prerequisites: ART 130, ART 135, ART 148, ART 149, or permission of the instructor.

ART 237 DIGITAL DESIGN: PORTFOLIO WORKSHOP.....3-2-2

A "capstone" course for Graphic Design majors in which the student prepares for entry into the job market or for continuing their education. Emphasis will be placed on creating digital portfolios for different devices and the web. Students will also learn traditional portfolio presentation techniques, self-promotion and marketing, and the standards and practices of graphic design professionals.

Prerequisites: ART 135, ART 148, and ART 231 or permission of the instructor.

ART 238 ANIMATION I3-2-2

This course is an introduction to the fundamental principles of animation. Conceptual skills related to timing, rhythm and motion are developed through exercises in drawn animation, with a progression to the introduction of basic digital animation tools. An emphasis will be placed on the development of personal style and solid craftsmanship in execution. An overview of the history of animation and professional working methods will be introduced. Screenings of complete shorts and/or excerpts of feature-length commercial and independent animation will be presented for evaluation and discussion.

Prerequisites: ART 111, and ART 130.

Corequisites): ART 112 and ART 131

ART 245 SCULPTURE: CLAY MODELING3-2-2

Beginning modeling in clay where studies are made from three-dimensional objects and skills are developed to render them realistically in clay. The student is also introduced to the process of abstraction..

ART 246 SCULPTURAL FABRICATION AND MOLD MAKING ...3-2-2

A workshop utilizing lectures, demonstrations and problems investigating the uses and properties of primary materials such as plasticine, plaster, glass, wood, plastic, etc. and the processes of modeling, moldmaking and other kinds of fabricating techniques associated with the forming of sculptural products.

Prerequisites: ART 245 - Sculpture: Clay Modeling

Or permission of instructor

ART 247 ADVANCED SCULPTURE3-2-2

Advanced problems in sculpture with emphasis on sophisticated conceptual investigation where specialization in ideas, directions and techniques is encouraged. Selected areas including modeling, foundry, welding, carving, and other forms of fabrication may be developed in depth.

ART 246 - Sculpture II: Sculptural Fabrication and Mold Making

Or permission of instructor

ART 261 CERAMICS II3-2-2

A course intended to develop and extend clay-forming skills introduced in Ceramics I through conceptual assignments. Handforming techniques will be explored singly and in conjunction with one another. Also an introduction to glaze chemistry will be made to initiate experimental testing on glaze bodies.

Prerequisite: ART 161 or permission of the instructor.

ART 262 CERAMICS III3-2-2

A continuing exploration of the clay medium demonstrating the more advanced techniques involved. This would include forming techniques as well as glaze testing and glazing skills.
Prerequisite: ART 261 or permission of instructor.

ART 265 SALT-GLAZED POTTERY.....3-2-2

This course will explore the historical development as well as the contemporary techniques in salt glazing stoneware pottery. Assignments will involve students in the various approaches to this ceramic technique, from slip glaze application to fuming the kiln.
Prerequisite: ART 161 or permission of instructor.

ART 266 RAKU POTTERY3-2-2

Although the historical context of Raku pottery will be explained, the contemporary approach to the medium will be pursued. Slip glaze techniques and glaze application will be explored as well as the effects of pre- and post-reduction firing of the Raku vessels. Clay and glaze making will be covered and the design and construction of a Raku kiln.
Prerequisite: ART 161 or permission of instructor.

ART 267 KILN BUILDING3-2-2

This course covers the history, design, development and construction of kilns. It will introduce the student to the construction skills involved in building kilns, such as welding, mortaring bricks, cutting bricks, and working with refractory fiber materials. The course will culminate with the actual construction or rebuilding of a kiln.
Prerequisites: ART 161 or permission of instructor

ART 271 PRINTMAKING II3-2-2

A continuation of ART 171 with an emphasis placed on the further development of skills learned in the introductory class. New media to be covered will include color intaglio, calligraphy, and lithography. Studio work and instruction.
Prerequisite: ART 171 or permission of the instructor.

ART 272 PRINTMAKING III3-2-2

This course is designed to continue the exploration of skills involved in the art of developing fine prints. The course will include demonstrations of techniques and lectures on concepts inherent in the graphic arts.
Prerequisite: ART 271 or permission of instructor

ART 275 PORTFOLIO AND PROFESSIONAL TECHNIQUES3-2-2

This course will help students prepare a portfolio for transfer or employment in the field of art after graduation and teach them the necessary elements to mounting an exhibition. Lectures, demonstrations, trips, and individual consultation will provide students with the information and skills needed for the successful preparation of presentation portfolios in traditional and digital formats. Each student will be required to mount a one- or two-person exhibition of his or her own work in the College student gallery space.
Prerequisite: thirty or more credits in Art courses at MCCC or permission of the instructor.

ART 299 INDEPENDENT STUDY IN ART3-0-6

ASTRONOMY

AST 120 INTRODUCTION TO ASTRONOMY.....4-3-3

Introduction to Astronomy is a one-semester college-level course in basic

astronomy. The course may be used as a laboratory science elective with basic algebraic applications. The course explores a broad range of astronomical concepts and principles in ten major areas: understanding the sky, apparent motions of the planets and the sun, telescopes and accompanying technology, basic structure and behavior of atoms, origin and analysis of light, origin of the solar system, internal structure and behavior of the sun, lifecycle of all stellar classes, origin and structure of galaxies and cosmology. Throughout the course, emphasis is placed on the implementation of the scientific method, the evidence that astronomers use to support their conclusions, and the importance of astronomy. (Night-time observing is required). (Also offered as GLG 121 and PHY 120)
Core Goals 2, 5 and 8)

Prerequisites: A minimum grade of "C" or better within 5 years in both MAT 011 and ESL 011 or ENG 011.

AST 121 ASTROBIOLOGY.....3-2-2

Astrobiology uses a multidisciplinary and scientific approach to analyze and assess the theories regarding the evolution of life elsewhere in the universe. While strong emphasis is placed on the astronomical/astrophysical aspects of astrobiology, the course introduces, discusses, and integrates aspects from multiple disciplines (chemistry, biology, geology, and earth sciences) to achieve an overall understanding of the definition of life and evolution. A secondary focus of the course is to develop a firm understanding of the scientific method such that students who complete the course can appreciate the scientific process, build scientific reasoning skills that are applicable beyond this course, and develop basic laboratory skills.
Core Goals 2 and 8)

Prerequisites: A minimum grade of "C" or better within 5 years in both MAT 011 and ESL 011 or ENG 011.

BIOLOGY

BIO 103 INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY3-3-0

This course is a non-laboratory descriptive study of the structure and function of the human body, while using a systems approach. Students must have successfully completed or tested out of ESL 011, ENG 011, MAT 010, and REA 011 or REA 017.

BIO 115 ENVIRONMENTAL BIOLOGY3-3-0

This course is designed to explore three aspects of the environment: the interacting components of the environment apart from man; the impact of man and contemporary cultures on the environment; and local pollution problems and possible solutions.
(Core Goals 2, 5, 11, 12 and 13)

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

BIO 120 CONCEPTS OF BIOLOGY4-3-3

This course is a terminal lab-science for non-science majors who desire only one-semester of Biology. Topics include a discussion of the fundamental and contemporary issues regarding biological chemistry, cell biology, genetics and the different forms of life. The material is discussed in the context of the principles of evolution and the biology of ecosystems. This course does NOT satisfy the Prerequisites for BIO 131.
(Core Goals 2 and 8)

BIO 121 GENERAL BIOLOGY I4-3-3

A study of the unifying principles which govern the operation of all living things; including biological chemistry, energy, metabolism, cell

biology and genetics. This course is designed for allied health science majors, biotechnology A.A.S. majors and other students desiring or requiring this course, a BIO 121/122 sequence or progression to BIO 151. Students taking this course anticipate going on to: BIO 122, 131, 140 and/or 151. Please see the MCCC catalogue for descriptions of the above continuing courses.

Prerequisite: Students must have successfully completed or tested out of ENG 011, MAT 011, and REA 011 or REA 017
(Core Goals 2 and 8)

BIO 122 GENERAL BIOLOGY II4-3-3

An emphasis is placed on evolution as it applies to the development, adaptation and taxonomy of organisms. The five kingdoms of organisms are discussed in terms of their structure, function, reproduction and adaptation. Laboratory experiences will include observation of organismal anatomy.

Prerequisite: BIO 121.

BIO 129 FUNCTIONAL HUMAN ANATOMY AND PHYSIOLOGY ... 4-3-3

This course provides a background in human anatomy and physiology, with emphasis being placed on the skeletal, muscular, cardiovascular, and respiratory systems. This course is oriented towards students in Exercise Science and Wellness degree programs. Dissection of preserved animal tissue is required.

Prerequisite: Students must have successfully completed or tested out of ESL 011 or ENG 011 and MAT 011, and REA 011 or REA 017

BIO 130 INTRODUCTORY ANATOMY AND PHYSIOLOGY4-3-3

A one-semester course in which the structure and function of the eleven basic human systems is studied, with more emphasis placed on the circulatory, urinary, endocrine, and respiratory systems. Oriented toward students in the MLT curriculum. Dissection of preserved material is required.

BIO 131 HUMAN ANATOMY AND PHYSIOLOGY I4-3-3

A course employing a systems approach to the structure and function of the human body. Emphasis will be placed on biological chemistry, the cell, the skeletal, muscular, nervous and integument systems. Appropriate, relevant laboratory experiences will be employed to supplement and/or reinforce the lecture material. Dissection of preserved animal material is required.

Prerequisites: Successful completion of High School Chemistry taken within the last five years, with a "C" or better, or CHE 121, CHE 131, CHE 150 or CHE 151 taken within the last five years with a "C" or better. Completion of BIO 121 within the past 5 years with a minimum grade of "C", or a passing grade on the MCCC Biology Placement Test.

BIO 132 HUMAN ANATOMY AND PHYSIOLOGY II4-3-3

This course is a continuation of BIO 131 with study of the normal and pathological structure and function of the human body. Emphasis will be placed on circulatory, lymphatic, respiratory, digestive, urinary, endocrine and reproductive systems. Dissection of preserved animal material is required.

Prerequisite: BIO 131 with grade of: C; or better in last 5 years.

BIO 140 MICROBIOLOGY AND IMMUNOLOGY4-3-3

A study of microorganisms and their relationship to infectious disease in humans. The biology of microorganisms; infection and pathogenesis; resistance and immunity. For Allied Health specialties and Science majors. (Laboratory/lecture format).

(Core Goals 2 and 8) Prerequisites: Students should have taken one year of high school chemistry and one year of high school biology with a grade of "C" or higher within the past 5 years. If a prospective student does not have this background, the instructor should be consulted for permission to register.

BIO 141 CLINICAL MICROBIOLOGY I4-3-3

BIO 141 is the first part of a two part Medical Microbiology course for MLT students. It examines the microbial world with emphasis on the morphology and biological properties of bacteria and their relationship to man and the clinical laboratory. It enables the student to understand how infectious disease is spread, how bacteria are isolated and identified, how microbes are controlled and the nature and use of antibiotics. The procedures used in the identification of medically important bacteria are stressed.

Prerequisites: Students should have taken one semester of college level biology and chemistry (CHE131 or CHE151 and BIO121, BIO130 or BIO151) with a grade of "C" or higher. If a prospective student does not have this background, the instructor should be consulted before the student registers for the course.

BIO 151 PRINCIPLES OF BIOLOGY I (FOR THE SCIENCE MAJOR)4-3-3

An introduction to the study of life as it applies to all organisms. Primary emphasis is given to biological chemistry, metabolism, production and utilization of energy, basic cell structure and reproduction and the classical and molecular aspects of genetics. Laboratory requires hands on experiments related to the course content.

Prerequisites: Successful completion of college preparatory High School Chemistry and Biology taken within the last five years or CHE 121 and BIO 121 with a "C" or better.

BIO 152 PRINCIPLES OF BIOLOGY II4-3-3 (FOR THE SCIENCE MAJOR)

Emphasis is placed on the diversity of life from an evolutionary and ecological perspective. Domains, supergroups and kingdoms are discussed from the standpoint of structure, function, metabolism, reproduction, development and evolutionary adaptation. Taxa are compared and contrasted with one another and as they relate to development and ecosystem biology.

Prerequisite: BIO 151 with a grade of C or better.

BIO 199 INDEPENDENT STUDY IN BIOLOGY I1-1-0

BIO 241 CLINICAL MICROBIOLOGY II4-3-3

A course that introduces Immunology, Virology, Mycology, and Parasitology as well as the immunological basis of serological tests and their uses in the diagnosis of infectious and non-infectious diseases. For students of Medical Laboratory Technology. (Laboratory/lecture format) Prerequisites: Students should have taken at least one semester of college-level chemistry and have completed BIO 141 (Clinical Microbiology I), with a grade of "C" or higher. A prospective student who does not have this background should consult the instructor before he or she registers.

BIO 256 ECOLOGY4-3-3

This course provides students with a 4-credit lab science focusing on the interactions of organisms with their biotic and abiotic environments. It will include an overview of the various components of population, community and ecosystem-level interactions, a broad survey of the major terrestrial and aquatic biomes of the world, both local and biosphere-level anthropogenic effects, and restoration ecology. Labs will reinforce important classroom concepts and will include both computer-based mathematical models of species interactions and in-field experiences to acquaint students with the diversity of ecosystem types and ecological processes.

Prerequisites: BIO 151 and BIO 152 or equivalents, or BIO 115, BIO 121 and BIO 122 or equivalents or permission of the instructor. A student must successfully complete or place out of ENG 0 II, ESL 0 II, MAT 0 II, REA 017 and REA011.

BIO 260 GENETICS4-3-3

A study of the basic principles and problems of classical, biochemical, and molecular genetics; including Mendelian inheritance, chromosomes, mutation, linkage mapping, DNA structure, gene expression and an introduction to recombinant DNA technology. Laboratory experiments provide an introduction to genetics and molecular biology; including studies of inheritance using organisms such as *Drosophila*, cloning, gel electrophoresis, and the polymerase chain reaction.

Prerequisites: BIO152 and CHE151, "C" or better in both.

BIO 299 INDEPENDENT STUDY IN BIOLOGY II2-2-0

**BIOTECHNOLOGY, BIOMANUFACTURING,
AND MOLECULAR TECHNIQUES**

BIT 120 INTRODUCTION TO BIOTECHNOLOGY4-3-3

This course is designed to acquaint students with the field of biotechnology. Topics will include a history of the biopharmaceutical industry, the drug discovery and development processes, medical biotechnology, forensics and bioremediation. Students will learn basic techniques and instrumentation used in biotechnology labs and the fundamentals of recombinant DNA technology. Issues that impact both the industry and the general population such as the regulation of the pharmaceutical industry, stem cell research, GMO's and bioethics will be examined in this course.

Prerequisite(s): High School Biology (college preparatory or higher) or a college biology course within the last 5 years With a grade "C" or better.

Co-requisite(s): BIT 123 – Techniques and Instrumentation in Biotechnology, or by permission of the instructor

**BIT 123 TECHNIQUES AND INSTRUMENTATION
FOR BIOTECHNOLOGY.....4-3-3**

This course will allow students to gain theoretical and practical, hands-on knowledge of the operation, maintenance and calibration of commonly used and specialized laboratory instrumentation. Laboratory procedures will include solution preparation, aseptic technique, protein separations and assays, electrophoresis and recombinant DNA technology. The students be introduced to the concept of working with good laboratory practices as they pertain to documentation and record keeping. Discussion and implementation of laboratory safety policies will be key components to the entire course.

Prerequisite(s): CHE 131 - Chemistry for Technology I, or
CHE 151 - Principles of Chemistry I (For the Science Major)

Co-requisite(s): BIT 120 – Introduction to Biotechnology, or by permission of the instructor.

BIT 220 BIOTECHNOLOGY RESEARCH4-3-3

This course provides a foundation for the principles of molecular genetics as they apply to research performed in the biotechnology industry. Lectures topics will include transcription, translation, cell cycle regulation and protein expression as they pertain to both prokaryotic and eukaryotic gene regulation. The laboratory will give hands on exposure to recombinant DNA technology such as cloning techniques (restriction digests, plasmid design, purification and gel electrophoresis), and propagation and maintenance of bacteria and other cell types.

Prerequisites: BIT 120 and BIT 123 (with a grade of a "C" or better) and CHE 132 or CHE 152. Corequisite: BIT 230

BIT 232 BIOMANUFACTURING4-3-3

The course provides a solid foundation in the biomanufacturing process of biopharmaceuticals, including producing them under current Good

Manufacturing Practices. Students use bacteria, mammalian, and/or yeast cells to produce human proteins using the tools of manufacturing, such as bioreactors for upstream processing and protein purification systems for downstream processing and quality control of protein production. Students with a science-related degree and/or biotechnology and pharmaceutical experienced may be able to complete this course as a stand-alone course. Prerequisites: BIT 123 or permission of instructor.

BIT 298 BIOTECHNOLOGY INTERNSHIP.....6-1-15

In this course, the student will work under the guidance of a mentor at a local pharmaceutical or biotechnology company (or, if appropriate, an academic or clinical setting) to gain expertise in a biological or manufacturing laboratory setting. The course will allow the student not only to gain a first hand work experience at the sponsoring institution but also allow him/her to make contacts necessary for gaining future employment. The lecture portion of this course will consist of topics related to the particular student internships occurring in the present semester. The students will learn to use and evaluate computer based genome databases. Other topics to be covered in the course include resume writing, networking and interviewing skills necessary for the biotechnology industry. Mock job interviews will be conducted with the students.

Prerequisites: BIT 120, BIT 123, BIT 220, and GPA of at least a 2.5 for all science courses, permission of the biotechnology coordinator, availability of an internship position, internship pre-test or screening by the instructor, fulfillment of any additional selection criteria imposed by the sponsoring institution.

Co-requisite: BIT 230

CHEMISTRY

**CHE 121 GENERAL CHEMISTRY INORGANIC
(FOR THE NON-SCIENCE MAJOR)4-3-3**

The course is designed to acquaint liberal arts majors with certain fundamental facts, principles, and techniques of chemistry with a view toward their application in modern life. Emphasis is placed on the scientific approach. This course is acceptable preparation for admission into Dental Hygiene, Nursing, and MLT programs.

(Core Goals 2 and 8) Prerequisite: One year high school Algebra or successful Completion or tested out of of MAT 011.

**CHE 122 GENERAL CHEMISTRY ORGANIC4-3-3
(FOR THE NON-SCIENCE MAJOR)**

This course emphasizes introductory Organic Chemistry and Biochemistry. The examination of the structure and reactivity of the major Organic and Biological classes of compounds will include an exploration of industrial and consumer oriented applications. This course is most appropriate for students with a background of basic Inorganic Chemistry and an interest in expanding their view of fundamental Chemistry or establishing a firm foundation for further study involving introductory Biology or Allied Health coursework. This course is acceptable preparation for admission into Dental Hygiene and Nursing programs, and is also a continuation of CHE 121.

Prerequisites: CHE 121 or equivalent college chemistry course, or recent high school chemistry and one year high school algebra or MAT 011.

CHE 131 CHEMISTRY FOR TECHNOLOGY I4-3-3

A general course in physical-inorganic and organic chemistry. Emphasis will be placed on the theoretical and descriptive attributes of chemistry, so as to form a sound basis for the understanding of analytical and biological chemistry and their applications to technology. Laboratory experiments will be performed so as to facilitate an understanding of the chemical principles and experimental techniques developed in the program.

(Core Goals 2 and 8) Prerequisite: High school Chemistry or equivalent (CHE 121).

CHE 132 CHEMISTRY FOR TECHNOLOGY II4-3-3

This course will present a brief overview of Nuclear Chemistry. The major portion of the semester will involve a survey of introductory Organic and Biochemistry. Topics will include the nomenclature, structure, physical properties, and chemical reactions of the major classes of Organic and Biological compounds.

Prerequisite: CHE 131.

CHE 150 ESSENTIALS OF CHEMISTRY4-3-3

A course designed to provide the chemical and mathematical background essential for success in CHE 151-152, the chemistry for science majors. The majority of students choosing CHE 150 will be those who have not had high school chemistry or who feel inadequate with their previous preparation. CHE 150 credits will count toward the associate degree at Montgomery County Community College but may not be transferable to other colleges.

Co-requisite: MAT 100.

**CHE 151 PRINCIPLES OF CHEMISTRY I.....4-3-3
(FOR THE SCIENCE MAJOR)**

A study of the fundamentals of chemistry for the science major. An emphasis is placed on atomic structure, molecular structure, bonding, periodic law, reactions and weight relations, gases, changes of state, thermochemistry, and an introduction to organic chemistry. The laboratory includes experiments from topics discussed in lecture.

(Core Goals 2 and 8) Prerequisite: High school Chemistry or CHE 150.

Co-requisite: MAT 161 or MAT 170.

**CHE 152 PRINCIPLES OF CHEMISTRY II.....4-3-3
(FOR THE SCIENCE MAJOR)**

This course is a continuation of CHE 151. The topics covered are: intermolecular forces, solutions, kinetics, equilibria, electrochemistry, introductory thermodynamics, and nuclear chemistry. The laboratory includes labs in these areas with emphasis on acid-base titration.

Prerequisite: CHE 151

CHE 199 INDEPENDENT STUDY IN CHEMISTRY.....3-3-0

CHE 261 ORGANIC CHEMISTRY I4-3-3

This course covers the nomenclature, structure, properties and reactions of the important classes of organic compounds. Stereochemistry, reaction mechanism and syntheses are stressed. The laboratory demonstrates syntheses discussed during lecture.

Prerequisites: CHE 151 and CHE 152.

CHE 262 ORGANIC CHEMISTRY II.....4-3-3

This course is a continuation of CHE 261 and covers the nomenclature, structure, properties and reactions of many important classes of organic compounds including arenes, alcohols, ethers, epoxides, thiols, sulfides, aldehydes, ketones, carboxylic acids, nitriles, carboxylic acid derivatives, amines, carbohydrates, amino acids and lipids. Stereochemistry, reaction mechanisms, syntheses and spectroscopy are stressed. The laboratory demonstrates syntheses discussed during lecture.

Prerequisite: CHE 261.

CHINESE

CHI 101 ELEMENTARY MANDARIN CHINESE I3-3-0

Elementary Mandarin Chinese I is an introduction to the Mandarin language. Students will learn to master basic communicative situations in Mandarin Chinese at a mid-novice level. The systematic training in speaking, listening,

writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Mandarin Chinese. In addition, students will learn about the various cultures in Mandarin Chinese speaking countries

(Core Goal 12)

Prerequisite: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

CHI 102 ELEMENTARY MANDARIN CHINESE II3-3-0

Elementary Mandarin Chinese II is the continuation of Elementary Mandarin Chinese I. Students will continue to master basic communicative situations in Mandarin Chinese at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in Mandarin Chinese. In addition, students will identify the linguistic and cultural diversity of Chinese speaking countries.

(Core Goal 12)

Prerequisite: CHI 101 or equivalent.

COMMUNICATION

COM 100 MASS MEDIA AND SOCIETY2-2-0

In this course students explore the impact of Mass Media on how we view, interpret, and evaluate our world. Students gain a basic understanding of the aesthetic, cultural, economic, and political forces that guide the creation and distribution of content via mass media. The course provides students with a clear understanding of the activities, roles, and issues related to mass media in today's society. Students explore how those issues have changed and will work to recognize and articulate the impact mass media have on diverse audiences.

(Core Goal 11 when taken with COM 160) Prerequisites:

Students must have successfully completed or tested out of ENG 011, ESL011, REA017, REA018. Co-requisite: COM 160.

**COM 101 SURVEY OF MASS MEDIA INDUSTRIES
IN THE UNITED STATES2-2-0**

This course surveys the history and evolution of mass media in the United States. Students achieve a basic understanding of mass media industries and trends. They examine the technology and history of print, motion pictures, recording industries, radio, television, multimedia, the Internet and emerging digital media, and use reasoning and analysis to understand the future of mass media.

Prerequisite: COM 100. Co-requisites: COM 161, ENG 101.

**COM 103 INTRODUCTION TO VIDEO
PRODUCTION EQUIPMENT2-2-0**

Students are introduced to the theory and operation of analog and digital cameras, elementary lighting and basic audio equipment, common professional video production, and filmmaking. After instructors explain the theory of production equipment, students complete assignments in basic equipment operation. The fundamentals of visual storytelling are emphasized.

(Core Goal 7 when taken with COM 163)

Prerequisite: COM 100. Co-requisite: COM 163.

COM 120 INTRODUCTION TO SCRIPTWRITING2-2-0

In this introductory survey course, students analyze different forms and techniques used in narrative scriptwriting for film, television and radio. Emphasis is placed on the pitch, treatment, and appropriate format. Demographic information, media writing, techniques of dialogue, along with the structure of the narrative are stressed.

Prerequisite: COM 100.
Co-requisites: COM 121, ENG 102.

COM 121 INTRODUCTORY SCRIPTWRITING WORKSHOP.....1-0-2

In this workshop students apply the basics of scriptwriting introduced in COM 120 to original and adapted material. Students are encouraged to develop a personal style by researching, writing, and editing character bibles and sketches, treatments, scenarios, pitches, log lines, tags, demographic statements and script scenes. Students write scripts to form for television, film, and radio that are also used in advertising, public relations, gaming, animation, and narrative drama.

Prerequisite: COM 160
Co-requisites: COM 120, ENG 102.

COM 123 INTRODUCTION TO WRITING FOR BROADCAST NEWS2-2-0

This course teaches students to organize, research and write coherent news stories for broadcast. It explores theory and practice to give students a foundation in the principles and practice of broadcast news reporting and writing. Students analyze written formats and styles used in radio and television newsrooms, write broadcast news copy and are introduced to professional information –gathering and interviewing techniques.

Prerequisite: COM 100.
Co-requisites: COM 124, ENG 102.

COM 124 BROADCAST NEWS WRITING WORKSHOP1-0-2

In this workshop, students apply the basics of broadcast news writing learned in COM 123. They research, write and report television and radio news stories. Students write voiceovers and anchor readers and field packages. They learn to conduct interviews, choose sound bites and write broadcast copy using a variety of professional news styles.

Prerequisite: COM 160.
Co-requisites: COM 123, ENG 102.

COM 153 CAMPUS RADIO WORKSHOP1-0-2

Campus Radio Workshop focuses on creating and producing original content for radio. As part of this course students conceive, create, produce and distribute productions about the College and College life for WRFM, and other community-based media outlets. The students participate in workshops where they are introduced to radio procedures and operations and work on sound packages including narrative, interview, music, news, and drama. They obtain hands-on industry experience and work to become key members of the student-operated radio station, WRFM.

Prerequisite: COM 160.

COM 160 MEDIA LITERACY WORKSHOP1-0-2

Students are introduced to the basic building blocks of storytelling and journalism. They gain a foundation level understanding of mass media by writing, producing and distributing aural and visual packages for digital media that help them better understand and interpret messages in today's media saturated world. Projects developed are distributed over class, school and student-based digital media.

(Core Goal 11 when taken with COM 100)
Prerequisite: ENG 011 or ESL 011 and REA 017 or REA 011. Co-requisite: COM 100.

COM 161 MEDIA INDUSTRIES WORKSHOP ..1-0-2

Building on skills and insights obtained in COM 100 and COM 160, students explore how mass media issues such as press censorship, copyright infringement, privacy rights and fair trial, libel and defamation, digital manipulation and other contemporary problems impact mass

media industries. To better understand and critically evaluate the implications of these issues on media industries, students use observational and writing skills and develop and distribute their media-based stories about these concerns. Projects developed are distributed over class, school and student-based media.

Prerequisite: COM 160. Co-requisite: COM 101.

COM 163 VISUAL LITERACY WORKSHOP1-0-2

Through demonstrations and hands-on experience, students apply the basics of lighting, exposure, composition, sequencing, and non-linear editing techniques used by professionals in visual narrative storytelling. The students develop ideas learned in COM 160 and 161 and apply the skills taught in COM 103 to capture quality images and sound using digital video equipment. Using these skills, they learn to tell stories using video and sound. Projects developed are distributed over student and other community-based media.

(Core Goal 7 when taken with COM 103)
Prerequisite: COM 160. Co-requisite: COM 103.

COM 166 INTRODUCTION TO ELECTRONIC JOURNALISM: RESEARCH AND REPORTING.....2-2-0

This course introduces the basic building blocks of electronic journalism. It builds on basic broadcast writing skills and explains how professionals in mass media tell stories using digital technology. Students explore the reporter's role and the technology involved in news reporting. They learn how to find stories, edit words, and produce both the pictures and sound as they prepare for electronic distribution to a diverse audience. Students gain a clear understanding of the principles and professional practices of television news production and learn to critically evaluate the ethics and controversies in unbiased storytelling.

Prerequisites: COM 101, COM 120 or COM 123, and COM 103 or COM 104.
Co-requisite: COM 167.

COM 167 INTRODUCTION TO ELECTRONIC JOURNALISM WORKSHOP1-0-2

In this workshop students apply the basic skills obtained in COM 166. Students develop stories, edit words, and produce both the pictures and sound as they prepare their stories for electronic distribution to a diverse audience over College, student and community-based media.

Prerequisites: COM 161 and COM 121 or COM 123, and COM 163 or COM 164.
Co-requisite: COM 166.

COM 199 INDEPENDENT STUDY/SPEECH COMMUNICATION CREDITS1-0-0

COM 200 ETHICS, RESPONSIBILITY, MASS MEDIA AND THE LAW3-3-0

Students examine and analyze mass media through case studies and commentaries that focus on a wide spectrum of historical and contemporary legal and ethical issues faced media practitioners in broadcasting, advertising, public relations, publishing and filmmaking. The course builds on information obtained in COM 101 to provide a foundation in the theoretical principles of media ethics and the legal issues surrounding mass media, journalism, and content distribution.

(Core Goal 5 and 13)
Prerequisite: COM 101. Co-requisite: ENG 102.

COM 208 INTRODUCTION TO MEDIA OPERATIONS2-2-0

Students learn about the organizational skills, financial practices, and business operations of mass media facilities. Students analyze the impact of new technologies, research issues, problems and solutions, develop case statements, and prepare plans and strategies for operating and programming media businesses.

Prerequisite: COM 101. Co-requisite: COM 209.

COM 209 MEDIA OPERATIONS WORKSHOP1-0-2

Students apply what they learn in COM 208 to operate, manage, direct, and motivate a workforce of students and volunteers at co-curricular media and theater clubs: CAPG, the College Radio Station, and the Drama Club. They organize staff, develop programming schedules, market and operate campus-based media facilities. They prepare business presentations, operational budgets, and strategies crucial for the success of student media operations.

Prerequisite: COM 161. Co-requisite: COM 208.

COM 210 HISTORY OF FILM I3-2-2

This course introduces students to the history, ideas, and vocabulary of modern cinema. Students learn about the various cinematic styles, genres, and techniques used in filmmaking as an art form. Students view, analyze, and critique films from the introduction of sound until the end of WW II. The goal of this course is to teach students how to think and write about early cinema from a historical, cultural, and aesthetic perspective.

Prerequisite: COM 101. Co-requisite: ENG 102.

COM 211 HISTORY OF FILM II3-2-2

This course will teach students how to research, analyze and comment on contemporary cinema. Students examine significant aesthetic developments in narrative, documentary and experimental film history since WWII. Students gain a better understanding of the aesthetic, social, economic and technological developments that helped create specific film movements outside of the Hollywood studio system. The course focuses on individual films and filmmakers of the period.

Prerequisite: COM 101.

Co-requisites: ENG 102, COM 210 or COM 230 (Successful completion suggested).

COM 213 ROCK AND ROLL, RADIO, AND THE RECORDING INDUSTRY3-3-0

A survey of the history and evolution of Rock and Roll in America and its impact on radio, television, society and the recording industry. Topics range from Rock and Roll's relationship to the birth of AM and FM radio to its influence on society and emerging technologies. Emphasis is placed on understanding Rock and Roll's impact in modern society.

Prerequisite: COM 101.

Co-requisite: ENG 102.

COM 214 RADIO AROUND THE WORLD. 3-3-0

This course surveys the history and evolution of radio in America and around the world and its impact on society and culture. Topics range from the roots of AM and FM to Internet, Satellite and emerging technologies that impact radio. Emphasis is placed on the history of programming styles, marketing, music and news promotion, and job development in the radio industry.

Prerequisite: COM 101. Co-requisite: ENG 102.

COM 216 HISTORY OF TELEVISION 3-3-0

This course surveys the historical, social, economic, and aesthetic implications of television in American life since WWII. Students learn about the people, personalities, technology, and business decisions responsible for the development of television as an industry. Students explore the development of television and the global impact of the medium, and they learn how American life shapes both the content and development of the television industry.

Prerequisite: COM 101 Co-requisite: ENG 102.

COM 217 HISTORY OF NEW MEDIA 3-3-0

Students study the history of New Media and how computers and emerging technologies have influenced, shaped and changed our culture and society. During their course of study, students interact with

various forms of new media and investigate the theories that helped create current digital communications.

Prerequisite: COM 101. Co-requisite: ENG 102.

COM 220 SCRIPTWRITING.....2-2-0

This class builds on scriptwriting skills introduced in COM 120. Students analyze film and television scripts, styles and genres, and develop their understanding of audience as they work to find a writing voice. Students develop an increased ability to present their ideas as they learn about varying methods and techniques of scriptwriting. They explore copyright, registration, employment, and guild issues and are introduced to the business of scriptwriting.

Prerequisites: COM 101 and COM 120. Co-requisite: COM 221.

COM 221 SCRIPTWRITING WORKSHOP..... 1-0-2

Students apply the information they learn in COM 220 while they work to complete a treatment, character bible, and script. During this workshop students read their work and listen to comments and critiques from their peers and faculty.

Prerequisites: COM 161 and COM 121. Co-requisite: COM 220.

COM 223 ELECTRONIC JOURNALISM PRODUCTION 2-2-0

Students build on previous production experience to develop more involved techniques of electronic reporting while planning and producing a news or documentary project in a professional atmosphere. Students perform increasingly complex pre-production, production and post-production techniques while working on individual and team projects. They work to enhance their storytelling knowledge and skills while meeting professional news standards and deadlines.

Prerequisites: COM 166. Co-requisite: COM 224.

COM 224 ELECTRONIC JOURNALISM PRODUCTION WORKSHOP.....1-0-2

In this advanced class, students work in production teams using professional audio and video equipment to develop news and documentary programs. The programs produced are faculty and peer reviewed and presented as news-based productions ready for distribution over student, college, and community-based media.

Prerequisites: COM 167. Co-requisite: COM 223.

COM 230 THE MOVIES: MEANINGS AND METHODS3-2-2

The popular arts of "the movies" and television are carefully prepared constructions of sights and sounds. Watching them is the chief way our society comes to recognize itself. COM 230 is about learning to get more enjoyment and meaning from these products of the image industries. The course examines how meaning is created and communicated in non print media. Basic concepts and techniques in constructing and interrelating visual and aural images will be discussed in light of the historical development of film and video technology and techniques.

(Core Goal 1a, 5 and 7)

COM 235 CURRENT ISSUES IN MASS MEDIA.....3-3-0

In this survey course students analyze current issues in mass media by examining existing communication technologies, programming, and business models. They explore current issues related to cable TV, emerging technologies, interactive and satellite technologies, the Internet, fiber-optics, digital audio and video, HDTV, and nanotechnology. Students research topics of interest, analyze personal and business uses of emerging technologies, and examine their implications for the audience, users, producers, and distributors.

Prerequisites: COM 101. Co-requisite: ENG 102.

COM 248 DIRECTING ACTORS3-2-2

This course is designed to inform future directors on the method, vocabulary and decorum for working on stage, television and film. Students become beginning directors who are introduced to the conventions and methods of acting and become better prepared to analyze text, clearly define a vision and communicate successfully with actors. The course consists of readings, discussion, exercises and in-class rehearsals. As part of the course, students are required to direct actors in a series of projects presented in class.

Prerequisites: THA 114 and either THA 105, COM 120 or COM 270.

COM 253 CAMPUS RADIO WORKSHOP II 1-0-2

Campus Radio Workshop II builds on the experience, knowledge and skills acquired in COM 153. In this Workshop, students must take leadership roles in creating and producing original content for radio. They help to operate the station and to create sound packages for distribution, including narrative, interview, music, news, and drama. As a result, they obtain an in-depth, hands-on industry experience and take an increasingly active role in operating the student-run radio station, WRFM.

Prerequisite: COM 153

Co-requisite: COM 251 or COM 209.

COM 260 NEW MEDIA PRODUCTION 2-2-0

This course is an introduction to the theory and practice of New Media production. Students are introduced to new media production techniques for audio, video, broadband (internet) and distribution of content over emerging technologies. Students will examine examples from current programmers, technologists and interactive journalists. Emphasis is placed on the procedures and processes of preparing for, and carrying out a new media production.

Prerequisites: COM 101 and either COM 103 or 104 and either COM 120 or COM 123. Co-requisite: COM 261.

COM 261 NEW MEDIA PRODUCTION WORKSHOP. 1-0-2

Students experience the interactive world of new media by implementing theory and production techniques on state of the art digital equipment. They are introduced to new media production techniques for audio, video, broadband (Internet) and distribution techniques for content display and interaction over emerging technologies. Students conceive, create, oversee and participate in productions from the early stages of conception, through the process of distribution. Emphasis is placed on the procedures and processes of preparing for and carrying out production of new media content for distribution to a diverse digital audience.

Prerequisites: COM 161 and either COM 163 or COM 164 and COM 121 or COM 124. Co-requisite: COM 260.

COM 266 INTRODUCTION TO CIVIC JOURNALISM 2-2-0

Using professional production equipment, students learn journalistic skills by researching, writing, editing, and producing short documentary-style news reports that examine local issues facing Montgomery County communities. They broaden creative styles and techniques for producing documentary style reports while meeting professional news standards and deadlines. Completed projects are distributed over student, College and community-based media.

Prerequisite: COM 166. Co-requisite: COM 267.

COM 267 CIVIC JOURNALISM WORKSHOP 1-0-2

In this workshop students develop production skills and practice the basics of Civic Journalism. They produce short-form news documentaries that are researched and developed in the co-requisite COM 266. Using professional digital production equipment, students submit proposals, review rough-cuts for approval, and edit their final for distribution via

mass media to a diverse audience.

Prerequisite: COM 167

Co-requisite: COM 266

COM 270 INTRODUCTION TO VIDEO PRODUCTION2-2-0

This course introduces the student to basic video and film production. Emphasis is placed on the procedures and processes of preparing for and carrying out a basic narrative shoot. Students act as producers-directors. They pitch stories, write treatments and scripts, learn pre-production techniques, discuss the role of the director and producer, produce a one-minute, three-minute, and five-minute story, and submit production books for review.

Prerequisites: COM 103. Co-requisite: COM 271.

COM 271 VIDEO PRODUCTION WORKSHOP 1-0-2

Students produce three basic film video projects in documentary, news, and/or dramatic/comedic style developed in COM 270. They are responsible for creating their projects from inception to completion and for producing them individually and as a group using professional production procedures. All projects are developed for an audience. They are faculty and peer reviewed, evaluated, and presented as productions ready for distribution over various student, College, and community-based media.

Prerequisites: COM 161 and COM 163. Co-requisite: COM 270.

COM 276 VIDEO PRODUCTION2-2-0

Students learn about video theory, aesthetics, and techniques while gaining hands-on experience. They explore and analyze the theory and practice of video as an art form, entertainment medium, and a creative communication tool. Students learn about idea and structure as they relate to story development. Students learn about advanced camera and editing techniques, compositing software, and streaming video for the Web as they prepare projects for production.

Prerequisite: COM 270. Co-requisite: COM 277.

COM 277 NARRATIVE WORKSHOP 1-0-2

In this workshop, students develop dramatic and documentary production skills and techniques by means of hands-on practicum and assignments. They explore and analyze emerging trends and learn to use advanced camera features and increase their understanding of more advanced lighting, and editing techniques. Students refine their story ideas and structure as they discuss story development and narrative style. Students learn about compositing, audio sweetening, and motion software and prepare single-camera narrative projects for production and distribution to a diverse audience over student, College and community-based media.

Prerequisite: COM 271. Co-requisite: COM 276.

COM 280 TECHNIQUES OF DIGITAL EDITING. 2-2-0

Students develop a critical understanding of the processes, aesthetics and technical theory involved in non-linear editing for narrative filmmaking and news production. Students examine diverse editing styles and ideas through reading and close analysis of a variety of TV and film examples. Students analyze techniques and emerging technologies used in dramatic and documentary storytelling.

Prerequisites: COM 101 and COM 103. Co-requisite: COM 281.

COM 281 DIGITAL EDITING WORKSHOP. 1-0-2

Students work to increase their ability and effectiveness as digital non-linear editors. They learn new skills and editing techniques by working as the assigned editor on their individual student and College-based projects. Through class discussions, lectures, demonstrations and group and individual critiques, students develop a more complete understanding of editing workflow, sound design, screen direction,

continuity, pacing, and how to construct the dramatic structure used in visual storytelling.

Prerequisites: COM 161 and COM 163. Co-requisite: COM 280.

COM 283 LIVE VIDEO PRODUCTION 2-2-0

Students explore the creative process and aesthetics necessary for producing specialized work in multi-camera live studio programming. Emphasis is placed on designing, producing, directing, lighting, scheduling and budgeting for live programs, including serial dramas and comedy, talk shows, sporting events, political debates, public-affairs and news programs. Students analyze and critique current live television productions, apply theory, identify and articulate aesthetics and determine trends.

Prerequisites: COM 101 and COM 103 and either COM 120 or COM 123. Co-requisite: COM 284.

COM 284 LIVE VIDEO PRODUCTION WORKSHOP 1-0-2

In this workshop, students learn about the principles of producing live television programming. Emphasis is placed on the process and aesthetics of directing live telecasts, including serial dramas and comedy, talk shows, sporting events, and political debates. Students learn basic live directing techniques, production design, and time management skills. Students produce their own creative projects individually and as part of a group.

Prerequisites: COM 161 and COM 163 and either COM 121 or COM 124. Co-requisite: COM 283.

COM 290 COMMUNICATION CAPSTONE 1-0-2

Communication Capstone is where students develop, produce and edit a major media-based project in this studio/lab workshop. Emphasis is placed on developing advanced skills in scripting, planning, organizing and executing media projects from inception to completion. In this workshop students work collaboratively, discuss, conceive, create and produce a work that displays the culmination of their knowledge, experience and production skills. Students work as producers and directors as the leader of their production crew. As part of this course, students organize and finish a complete portfolio of all their work that includes a resume, reel, personal statement and cover letter.

Prerequisites: COM 251 or 261 or 271 or 281

COM 299 INDEPENDENT STUDY IN COMMUNICATION 3-0-6

CULINARY ARTS

CUL 110 INTRODUCTION TO THE CULINARY PROFESSION ... 2-2-0

This course presents the professional culinary industry to Culinary Arts and Baking and Pastry Arts students. Students will be presented with a variety of career possibilities within the culinary industry. Students will learn communication and public speaking and interaction skills through interaction with guest industry speakers. Students will learn how to prepare a career outline, resume/CV, personal portfolio, and prepare for a professional job interview. Students are required to wear professional dress for this class as prescribed in the course syllabus.

Co-requisite: CUL 120 or CUL 130

CUL 111 FOODSERVICE SANITATION2-2-0

This course provides the basics of food sanitation and safety including microorganisms found in food borne illness, proper sanitation procedures, temperature affects and proper food handling. Students complete the ServSafe certification exam from the National Restaurant Association.

CUL 114 BEVERAGE MANAGEMENT.....3-3-0

This course will provide the student with the basic skills to manage inventory, control costs, and market an establishment that offers alcoholic beverages. It will introduce the student to the basic production processes and varieties of alcoholic and non-alcoholic beverages. The course will explain laws and procedures related to responsible alcohol service. Students successfully completing this course will complete the ServSafe Alcohol exam for certification.

Pre-requisite CUL 110

CUL 120 CULINARY SKILL DEVELOPMENT3-1-4

This course presents the basic principles of food preparation for hotel, restaurant and industrial food catering establishments. Topics covered include the identification, production, and evaluation of knife skills, stocks, classical sauces, soups, vegetables, sandwiches, salads and salad dressings. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

CUL 121 ADVANCED CULINARY SKILL DEVELOPMENT.....3-1-4

This course presents the fundamentals of food preparation related to protein cookery and finished plate development. Topics include the identification, production, and evaluation of beef, poultry, shellfish, finfish, breakfast foods and vegetarian cookery. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

Pre-requisite: Students must have successfully completed or tested out of CUL 120

CUL 130 BAKING SKILL DEVELOPMENT3-1-4

This course presents the basic principles of baking for hotel, restaurant and industrial food catering establishments. Topics covered include the identification, production, and evaluation of yeast leavened products, quick breads, pies, tarts, cookies, and basic cakes. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

CUL 131 ARTISAN BREADS.....4-2-4

This course presents the principles of bread production for hotel, restaurant and industrial food catering establishments. Students will learn the basic techniques of mixing, shaping, baking, and storage of breads and rolls. They will learn a variety of traditional fermentation techniques while looking to develop basic taste and flavor components in their products. Students will learn how to produce specialty breads from a variety of world cultures along with seasonal specialty breads. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

Prerequisites: Students must have successfully completed or tested out of CUL 130

CUL 151 PURCHASING FOR HOSPITALITY OPERATIONS.....3-3-0

This course is designed to give the students a background in basic techniques and procedures in all facets of purchasing in the hospitality industry. The course details the flow of goods, including inventory, forecasting, purchase specifications, purchasing, receiving, storing, inventory control, and issuing of food and beverage. Included in the course are the basic purchasing concepts that are useful to both managers and staff in the hospitality industry.

Prerequisites: HOS 111 or CUL 110

CUL 198 CULINARY AND BAKING & PASTRY CERTIFICATE PRACTICUM1-0-14

This is a work-experience course in which the student is required to work a minimum of 200 hours in a college-approved commercial kitchen. This course requires weekly documentation in course management system once registered for course. Students meet with the assigned CAI Externship instructor or Culinary Director for externship approval. Once approval is received students begin recording hours. Experience must be completed before or during the last semester of attendance in the program.

Prerequisite(s): CUL 110, CUL 111, CUL 120, CUL 130, and Approval of CAI Externship instructor or Director of the CAI

CUL 211 HOSPITALITY ENTREPRENEURIAL PLANNING...3-3-0

This course presents the principles of entrepreneurial skills for marketing and developing business plans for the culinary industry. Students in this class will learn how to develop a marketing plan for a potential business to add to their portfolio of previously developed food menus, beverage menus, purchasing plans, etc. to build a business plan upon completion of this course.

Prerequisites: CUL 114, CUL 151, CUL 220

CUL 220 MENU PLANNING/COSTING/DESIGN3-3-0

This course is designed to teach the student the importance of the menu as the single controlling document in hospitality operations. Topics include menu design and development, government regulations, pricing, and menu management.

Prerequisites: HOS 111 or CUL 110

CUL 221 GARDE MANGER...3-1-4

This course presents the basic principles of Garde Manger for hotel, restaurant and industrial food catering establishments. Topics covered include charcuterie and salumi found in various cultures, hors d'oeuvre and canapés, decorative centerpieces, cheese production and use in recipes, and planning and preparation of a buffet for a special event. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class.

Prerequisites: Students must have successfully completed or tested out of CUL 121

CUL 222 QUANTITATIVE FOODS4-2-8

This is a course in the preparation and service of a complete events menu. Students prepare meals for groups that hold their events on campus. Quality and quantity cooking is emphasized, as well as proper plating techniques. Special attention is given to the correct and efficient service techniques for banquets. Planned menus include appetizers, salads, entrees, desserts and beverages. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class.

Prerequisites: CUL 121

CUL 230 CHOCOLATES AND CONFECTIONS.....4-2-4

This course presents the principles of chocolate and confections for baking and pastry shops, hotel, restaurant, and food catering establishments. Topics covered include the identification, production, and evaluation of chocolates and confections utilizing traditional and modern methodology and technology. Students will learn the techniques of tempering, sugar cooking, hand dipping, and shell molding to produce varieties of ganche, sugar confections, jellies, and nut-based confections. Sanitary practices and compliance with laws and

ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

Prerequisites: Students must have successfully completed or tested out of "CUL 130"

CUL 231 PASTRY AND PLATED DESSERTS3-1-4

This course presents the skills of classical pastries, cakes and desserts. Students will prepare a variety of classical cookies, quick breads, pastry dough products, tarts, gateau, entremets, plated desserts, glace, and frozen desserts understanding their methodology and preparation. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

Prerequisites: Students must have successfully completed or tested out of "CUL 230"

CUL 232 OCCASIONAL AND WEDDING CAKES4-2-4

This course presents the advanced principles of occasional and wedding cakes. Students will build upon the skills learned in earlier courses working toward developing advanced flavor profiles and decorative styles in occasional and wedding cakes. The class will culminate in the preparation of three-tier themed wedding cakes for display. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

Prerequisite: Students must have successfully completed or tested out of "CUL 230"

CUL 241 HOSPITALITY MANAGEMENT TECHNIQUES3-3-0

This course is designed to provide the student with an introduction to the basic personnel management functions in the operation of a food service or lodging operation. Included are personnel recruitment, selection, orientation, training, and development.

Prerequisites: CUL 151 and CUL 220 (or HOS 220) or permission of instructor.

Co-requisite(s): HOS 215 or CUL 211

CUL 260 WORLD CUISINES3-1-4

This course presents the principles of traditional dishes of cuisines throughout the world. Ingredients, flavor profiles, preparations, and techniques of each cuisine will be analyzed. Students will have the opportunity to prepare, taste, and analyze dishes from each cuisine. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class.

Prerequisites: Students must have successfully completed or tested out of CUL 121

CUL 281 RETAIL SERVICE AND OPERATIONS 14-2-8

This course presents the principles of retail culinary operations for Culinary Arts students. Students in this course will learn the practical application of restaurant production and service. This hands on course will involve production for the public for the college's retail entities enforcing practical skills with public evaluation. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies.

Prerequisites: CUL 121 or CUL 131 and SPC 120, CUL 111, CUL 114, CUL 120

CUL 282 RETAIL SERVICE AND OPERATIONS 24-2-8

This course presents the principles of retail culinary operations for Culinary Arts students. Students in this course will learn the practical application of restaurant concepts, location and design, business and marketing plans, financing, legal and tax matters, menus, and food and equipment purchasing. This hands on course will involve production for

the public for the college's retail entities enforcing practical skills with public evaluation. Additionally students will learn the dining room service skills and will interact directly with retail guests. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional uniform to participate in class according to departmental uniform policies.
Prerequisite: CUL 281

CUL 298 CULINARY AND BAKING & PASTRY DEGREE PRACTICUM 1-0-14

This work-experience course is a continuation of CUL 198, in which the student is required to work an additional 200 hours in a college-approved commercial kitchen. (CHECK a minimum of 2) This experience may either be at a new establishment or at the previous location in which CUL 198 was completed, or in conjunction with CUL 198, depending on student career preferences. This course requires weekly documentation in course management system once registered for course. Students meet with the Assigned CAI Externship Instructor or Culinary Director for externship approval. Once approval is received students begin recording hours. Experience must be completed before or during the last semester of attendance in the program.

Prerequisite(s): CUL 110, CUL 111, CUL 120, CUL 130, and Approval of Assigned CAI Externship Instructor or Director of the CAI

COMPUTER & INFORMATION SYSTEMS

SPECIAL ONE-CREDIT COURSES

Note: Graduation credit will not be awarded for CIS 100, 101 or 102 If A Student also completes CIS 110.

Textbooks for all one-credit CIS courses are to be purchased in advance at the College Bookstore.

CIS 100 INTRODUCTION TO PERSONAL COMPUTERS 1-1-0

This course teaches personal computer operations and applications. The PC will be used for hands-on experience in topics including personal computer operations and control (DOS), Windows, word processing, and electronic spreadsheets. The course assumes no previous knowledge of personal computers. (This course may be taken on a pass/no pass (P/NP) basis only. The grade will not affect grade point average.)

CIS 106 INTRODUCTION TO THE INTERNET 1-1-0

This course introduces the student to the structure of and use of the Internet worldwide computer network. Resources discussed will include Archie, File Transfer Protocol (FTP), Gophers, Listserv, Telnet, Usenet, Wais, and the World Wide Web (WWW), etc. Electronic mail (e-mail) facility, various means of accessing the Internet, and "netiquette" issues surrounding the appropriate use of such networks will be discussed. Considerable hands-on experience will be provided. (This course may be taken on a Pass/No Pass (P/NP) basis only. The grade will not affect grade point average.)

Prerequisite: CIS 100 or equivalent experience.

CIS 108 INTRODUCTION TO WEB PAGE DESIGN 1-1-0

This course introduces students to the fundamentals of World Wide Web page design using the Hypertext Markup Language (HTML) and a simple HTML editor. Students will have extensive hands-on experience creating HTML tags, links and incorporating images. Design elements

will also be considered. (This course may be taken on a Pass/No Pass (P/NP) basis only. The grade will not affect grade point average.)
Prerequisites: CI5 100 and CI5 106 or equivalents.

CIS 183 WEB PAGE DEVELOPMENT (DREAMWEAVER) 1-1-0

Students will learn high-level web page creation skills using the sophisticated Dreamweaver web page editor. Explore page creation, images, links, forms, tables and frames as well as advanced features such as DHTML, style sheets, layers, animation, site management and FTP. (This course may be taken on a Pass/No Pass (P/NP) basis only. The grade will not affect grade point average.)

Prerequisites: CI5106 and either CI5 108, CI5 181 or CI5 114 (or equivalent web page development experience).

CIS 184 WEB ANIMATION (FLASH).. 1-1-0

Macromedia Flash is a widely used vector art and animation software tool for developing and delivering low-bandwidth animations, presentations and movies. Students will learn the basics skills necessary to create simple graphic and text animations to be published on the web. (This course may be taken on a Pass/No Pass (P/NP) basis only. The grade will not affect grade point average.)

Prerequisites: CI5 106 or CI5 108 or CI5 181 (or equivalent web development experience) and CI5 148 or basic knowledge of a graphic editing program (Photoshop, Paint Shop Pro, etc).

CIS 185 ADVANCED WEB ANIMATION (FLASH) 1-1-0

This course will develop advanced skills using Macromedia Flash to produce websites with creative designs, moving imagery and thought provoking animations. Students will learn and practice how to create movie clips, design a Flash website, create interactive buttons, menus and pre-loaders. Object-oriented programming techniques in ActionScript will be developed to utilize the many features in Flash. The course will emphasize the importance of usability, optimization, and performance. (This course may be taken on a Pass/No Pass (P/ NP) basis only. The grade will not affect grade point average.)

Prerequisite: CIS 184 or equivalent experience with Flash.

REGULAR SEMESTER COURSES

CIS 110 INFORMATION SYSTEMS FOR MANAGEMENT WITH COMPUTER APPLICATIONS 3-2-2

This course introduces non-computer science majors to the fundamentals of computer hardware, software, and their integration into management information systems. Included are hands-on applications using commercially prepared software on PCs including spreadsheets, databases, and elementary word processing.

(Core Goals 2 ,4 and 5)

Note: For students interested in becoming more familiar with the keyboard, mouse, Windows environment, etc. before taking this course, OFM 111-Beginning Word Processing-is recommended.

Note: Graduation credit will not be awarded for CIS 100,101,102, or 155 if student also completes CIS 110.

CIS 1101 INTRODUCTION TO PROBLEM SOLVING AND PROGRAMMING3-2-2

This course prepares students with limited computing background to enter the field of information technology or computer science. Students develop the essential concepts for logic, design and problem solving skills used in computer programming. Students will apply these skills by developing complete graphical, event-driven programs using a visual language such as Microsoft Visual Basic. The emphasis on the

course is to learn concepts and techniques that are common to most programming languages in developing business solutions. This course is also appropriate for non- information technology majors.
Prerequisite: MAT 011.

**CIS 111 COMPUTER SCIENCE I:
PROGRAMMING AND CONCEPTS 3-2-2**

This course introduces students to fundamental techniques, concepts and vocabulary of procedural programming and computer science. Emphasis is placed on programming in a high-level computer language such as Java or C++. This is the first course for computer majors.

(Core Goals 2, 4, 5 and 13)

Prerequisite: MAT 100 or MAT 115, with a "C" or better or equivalent, or Placing ABV 100 on the math placement test.

**CIS 111B COMPUTER SCIENCE II:
OBJECT-ORIENTED PROGRAMMING 3-2-2**

This course introduces students to the object-oriented programming paradigm and focuses on the definition and use of classes and the fundamentals of object-oriented design. It is designed for students that already have a firm foundation in procedural programming concepts. A high-level programming language such as Java or C++ is used. This is the second course for computer majors.

Prerequisite: CIS 111, with a "C" or better or equivalent experience in procedural programming techniques.

**CIS 112 COMPUTER SCIENCE III:
DATA STRUCTURES & ALGORITHMS 3-2-2**

Building on the concepts learned in CIS 111B, the fundamental concepts of data structures and algorithms are explored. This course will apply software engineering techniques to the design and implementation of programs that manipulate complex data structures. Effective software engineering methods are stressed as well as developing good programming style. A high-level compiler language such as Java or C++ will be used. This is the third course for computer majors.

Prerequisite: CIS 111B with a "C" or better, or equivalent object-oriented programming experience.

CIS 113 PC MAINTENANCE AND SUPPORT 3-2-2

Students develop the necessary skills to support personal computers by solving common computer hardware and software problems. Students will learn to install and maintain a variety of processors, operating systems, and applications. Successful completion of the course prepares students for the A+ Certification examination sponsored by the Computing Technology Industry Association.

CIS 114 WEB DESIGN AND DEVELOPMENT 3-2-2

This hands-on course introduces students to the fundamental skills required to build a modern and standards compliant Web site. A specific focus is placed on usability design and the use of HTML and CSS standards to create positive user experiences across a variety of devices and browsers. Students will learn the tools and skills necessary to build, organize, and maintain Web sites while following industry best practices in interface design and usability.

Prerequisites: ESL 011 or ENG 011, and REA 017 or REA 011.

CIS 120 TEACHING WITH TECHNOLOGY 3-3-0

This course will give students the opportunities to explore, utilize, evaluate, and integrate the computer and technology into their classrooms and curriculum. Students will be involved in many aspects

of this integration, including lesson plan writing and unit designing. Students will develop the skills for enriching their classrooms with computers and technology. (Also offered as EDU 120.)

CIS 122 VISUAL BASIC 3-2-2

This is a comprehensive course in using Visual BASIC to implement Windows programming concepts. These include usage of Windows' controls, icons, bitmaps, DLL's, VBX's, OLE, DDE and memory allocation. This course teaches the considerations of custom installation, structured programming, problem solving, and the uses of Visual BASIC as system prototyping tool, and the uses of Visual BASIC for live a systems development tool.

Prerequisites: CIS 111 or equivalent experience.

CIS 126 COMPUTER ARCHITECTURE & ORGANIZATION 3-2-2

This course is designed to explore how a computing system works and introduces the student to the organization and architecture of computer systems using the Assembly programming language. Computer Science students will gain insight into the functional components of a computer system. Topics covered will include digital logic, data representation, interfacing and I/O strategies, memory architecture, a computer's functional organization, and multiprocessing. The importance of CPU clock speed, cache size, bus organization, and number of core processors will also be discussed.

Prerequisite: CIS 111 or equivalent, with a grade of "C" or better.

CIS 140 CLIENT-SIDE WEB DEVELOPMENT 3-2-2

Students will learn the Javascript programming language and how to use Javascript to build dynamic web sites that take advantage of modern Web browser features. Topics will include the Document Object Model (DOM), XML and JSON data formats, Hypertext Transfer Protocol (HTTP) and the XMLHttpRequest object. Students will learn how to combine these and other technologies to build Ajax applications.

Prerequisites: CIS 111B and CIS 114 or their equivalents.

CIS 141 INTRODUCTION TO LINUX 3-2-2

This course is designed to provide students with a fundamental knowledge of the conventions, techniques, and terminology of the Linux Operating System. Students will learn the skills necessary to utilize, administer, and install Linux in both networked and desktop environments. The objectives of this course will align with a major Linux professional certification.

Prerequisite: CIS 155 or equivalent experience.

CIS 142 LINUX ADMINISTRATION 3-2-2

This course provides extended knowledge of the Linux Operating System. Advanced features and benefits of this operating system including system administration, networking, configuration, communications, and control will be studied. Students will participate in complex laboratory assignments. The objectives of this course will align with a major industry certification exam.

Prerequisite: CIS 141 or equivalent experience.

CIS 151 SYSTEMS ANALYSIS AND DESIGN 3-3-0

Introduces students to the latest versions of leading software applications used in the field of graphic design including Adobe Illustrator, Adobe Photoshop and Quark Xpress. Students will create and manipulate images and text and learn techniques for exporting files into different formats for use across platforms, in multiple applications and for the web.

Prerequisite: CIS 111 or equivalent business experience.

CIS 155 PC APPLICATIONS ON NETWORKS 3-2-2

This course will provide an overview of Microsoft Office and several desktop operating systems, which are typically supported on a local area network. Software covered will include command line interfaces, Excel, Word, PowerPoint, Access, and Windows. Additional topics will include the Internet, alternative desktop operating systems, networking basics, software licensing, file management, hardware selection, software integration, and viruses. The impact of running and supporting this software on a network will be emphasized.

(Core Goals 2 and 4)

CIS 156 NETWARE ADMINISTRATION AND SUPPORT.....3-2-2

This course will provide an introduction to Local Area Network (LAN) technology by teaching the fundamental skills needed to manage a Novell NetWare network effectively. NetWare concepts and utilities will be taught through a combination of lecture, hands-on assignments, and projects. This course is designed to prepare students to take the CNA exam.

Prerequisites: CIS 155 and CIS 170 or equivalent experience.

CIS 158 WINDOWS SERVER ADMINISTRATION AND SUPPORT.....3-2-2

This course provides the student with the knowledge and skills necessary to perform day-to-day administrative tasks in a single or multiple domain Microsoft Windows Server 2008 R2 based network. Students will learn how to implement system security, create users, establish network printing, backup system data and manage system resources. This course will also include topics on installation, configuration and troubleshooting in a Microsoft Windows environment using the most current version of the Server and Client operating systems. Virtualization of Student Servers will be employed throughout this course.

Prerequisite(s): CIS 155 and CIS 170, or equivalent experience

CIS 166 INTRODUCTION TO CLOUD COMPUTING.....3-2-2

This course introduces the evolution, architecture, structure, functions, components, and models of Cloud computing. Students will learn about computing principles and concepts involved and what it means from a business and technical perspective. The course will also cover the objectives of the CompTIA Cloud Essentials certification exam.

CIS 167 INTRODUCTION TO DATA STORAGE AND STORAGE AREA NETWORK.....3-2-2

This course will teach a student the knowledge and skills required to configure basic storage networks to include archive, backup, and restoration technologies. Students will also learn about the fundamentals of business continuity, application workload, system integration, and storage/system administration, while performing basic troubleshooting on connectivity issues and referencing documentation. The course will also cover all the objectives of the CompTIA Storage + certification exam.

Prerequisite(s): CIS 170 or equivalent knowledge.

CIS 168 DATA CENTERS AND CLOUD STORAGE3-2-2

This course will teach a student about the components and functioning of a data center and the components of modern information storage infrastructure, including virtual data storage environments. The course will provide comprehensive learning of storage technology and prepares a student to learn advanced concepts, technologies, and products. A student will learn about the architectures, features, and benefits of Intelligent Storage Systems; storage networking technologies and the

increasingly critical area of information security in the emerging field of cloud computing.

Prerequisite(s): CIS 166 Introduction to Cloud Computing.

CIS 170 INTRODUCTION TO NETWORKS (CISCO SEMESTER 1).....3-2-2

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

Co-Requisite MAT 100 or any MAT Core Goal 3 Course or permission of the instructor or program director.

CIS 171 ROUTING AND SWITCHING ESSENTIALS (CISCO SEMESTER 2).....3-2-2

This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

Prerequisite: CIS 170 or Cisco CCNA 1 from any Cisco Academy.

CIS 172 LAN SWITCHING & WIRELESS TECHNOLOGIES (CISCO SEMESTER 3).....4-3-2

This course provides students with the necessary skills to design, implement, and configure network switches and wireless LANs in a converged switched network environment. Students will learn about the appropriate protocols and technologies to build a secure and efficient small-to-medium sized network. The implementation of Virtual LANs, VTP, and Inter-VLAN routing will be discussed.

Prerequisites: CIS 170 or Cisco semesters 1 from any authorized Cisco Academy.

CIS 172B ACCESSING THE WAN (CISCO SEMESTER 4).....3-2-2

This course covers a variety of WAN related concepts and technologies. Students will learn how to evaluate, design, build, and maintain an enterprise network. Areas discussed will include WAN security, protocols, and addressing. A focus is placed on troubleshooting and resolving a number of WAN specific issues.

Prerequisites: CIS 171 and CIS 172 or Cisco Semester 2 and 3 from any authorized Cisco Academy.

CIS 176 GAME DESIGN PRACTICE & THEORY3-2-2

This course introduces the fundamental techniques, concepts, and vocabulary of electronic game and simulation development. Students will explore the historical, social, and cultural effects of electronic games while applying modern game design and development methodologies and principles to create their own game.

Prerequisites: MAT 100 or MAT 115, with "C" or better or placing above (ABV) MAT 100 on the math placement test.

CIS 177 INTRODUCTION TO 3D MODELING3-2-2

This course introduces the fundamental techniques, concepts, and vocabulary of 2D and 3D art development for electronic games and simulations. Students will use 2D and 3D development tools and apply appropriate design methodologies and principles to create graphic images. Students will be introduced to 3D game engine technology and the process of importing and manipulating art objects using popular game engines and graphics tools.

CIS 203 VMWARE VSPHERE.....3-2-2

This hands-on virtualization training course will explore the installation, configuration, and management of VMware vSphere, which consists of VMware vSphere ESXi and VMware vCenter Server. Completion of this course satisfies the prerequisite for taking the VMware Certified Professional 5 exam.

Prerequisite(s): CIS 158

CIS 204 CITRIX XENDESKTOP AND XENAPP.....3-2-2

This course provides the foundation necessary for administrators to effectively centralize and manage desktops and applications in the datacenter and deliver them as a service to users anywhere. Students will learn how to select a desktop delivery model, build proof-of-concept and production XenDesktop environments. Citrix XenApp will provide the foundation necessary for administrators to effectively centralize and manage applications. This course also provides instruction on building a Provisioning services farm to enable single-image desktop management and host virtual machines using Citrix XenClient. The course will cover the objectives of the Citrix Certified Administrator for XenDesktop and XenApp certification examinations.

Prerequisite(s): CIS 203 VMware vSphere

CIS 205 MICROSOFT WINDOWS SERVER HYPER-V.....3-2-2

This course provides students with the knowledge and skills to configure and administer Hyper-V in Windows Server 2012. Students will learn the history of Virtualization as it pertains to Microsoft technologies and the new features of Hyper-V in Windows Server 2012. After completing this course students will be able to install, configure, and administer Hyper-V in Windows Server 2012 and will also be able to describe the High Availability features built into Hyper-V in Windows Server 2012.

Prerequisite(s): CIS 158

CIS 206 CLOUD SERVICES.....3-2-2

This course will teach a student the knowledge and skills required to implement, maintain, and deliver cloud technologies and infrastructures (e.g. server, network, storage, and virtualization technologies), and to understand aspects of IT security and use of industry best practices related to cloud implementations and the application of virtualization. Various models of cloud services and deployments will be discussed. The course will include the objectives of the CompTIA Cloud + certification examination.

Prerequisite(s): CIS 166 Introduction to Cloud Computing

CIS 207 INTRODUCTION TO COMPUTER FORENSICS3-2-2

This course will teach a student the knowledge and skills required to identify, track, and prevent cybercrimes. Students will also learn about the cyber security and investigation techniques, safeguarding of information and enhancing network and data security, while performing basic troubleshooting to identify and establish steps to prevent future attacks. The course will also cover the objectives of the EC-Council Computer Hacking Investigator (CHFI) certification examination.

Co-Prerequisite(s): CIS 275 Network Security Fundamentals

CIS 208 IMPLEMENTING NETWORK SECURITY3-2-2

This course will teach a student the knowledge and skills required to design, configure, maintain and audit network security. Students will also focus on advanced router features being used for perimeter defense, firewalls, intrusion prevention and learn about securing switches and the process of authentication, authorization and accounting. This course will prepare a student for cyber security jobs and to take the

CCNA Security certification examination and get the NSA CNSS 4011 recognition.

Prerequisite(s): CIS 171 Routing and Switching Essentials

CIS 209 ETHICAL HACKING3-2-2

This course will teach a student the knowledge and skills required to look for weaknesses and vulnerabilities in the computer systems and networks with a view to enhance defense against cyber-attacks. Students will also learn about Information System Security, Trojans, Viruses and Worms and understand the concepts of Cryptography and learn the steps to implement security controls to detect and prevent cyber-attacks. The course will also cover the objectives of the EC-Council Certified Ethical Hacker (CEH) certification examination.

Prerequisite(s): CIS 275 Network Security Fundamentals

CIS 215 DECISION MAKING USING SPREADSHEETS.....3-2-2

This course provides additional experience using Microsoft Excel as a productive decision-making tool. Topics covered will include macro programming, advanced printing features, data base management, internal functions, and graphing.

Prerequisites: CIS 110 or CIS 155 or equivalent experience.

CIS 231 PROJECT MANAGEMENT..... 3-3-0

This course will introduce students to key aspects of contemporary project management. Through hands-on exercises and case studies, students will learn the project planning process in detail, culminating in the creation of a baseline plan and budget using Microsoft Project. Topics addressed will be project scope and objectives, deliverables, milestones, tasks, work breakdown structure, responsibility and authority, project network, critical path analysis, costs, resource allocation, and auditing. (Also offered as MGT 231.)

Prerequisites: CIS 110 & MGT 111 or equivalent business experience.

CIS 235 OBJECT-ORIENTED PROGRAMMING IN C++.....3-2-2

This course will teach students C++. Emphasis will be placed on object-oriented programming and design, programmer defined data types (objects), object derivation, polymorphism, function overloading, object-based abstract data structures (link lists, stacks, collections) and event-oriented program control.

Prerequisites: CIS 111 or equivalent.

CIS 238 IPHONE OS APPLICATION DEVELOPMENT 3-2-2

This is a comprehensive course on how to develop applications for Apple's iPhone, iPod touch, and iPad. Students will learn how to utilize the iPhone SDK, Objective-C programming language, and the standard Apple development tools Xcode, Interface Builder, and Instruments to build applications for distribution via the iTunes App Store. Although students may use the College's Macintosh labs to complete their course work, it is highly recommended that students have access to an Intel-based Macintosh to complete work outside of class. An iPhone, iPod touch, or iPad is not required for the course but is also recommended.

Prerequisites: CIS 111B with a C or better, or prior object-oriented programming experience and permission of the Instructor. Experience with C or C++ programming is recommended but not required.

CIS 240 ANDROID APPLICATION DEVELOPMENT3-3-2

This is a comprehensive course on how to develop applications for Android phones and tablets targeted for business needs. Students will learn how to utilize the Android SDK with the Java programming language using standard Java development tools to build applications for distribution via the Android Market. Students will learn how to design

mobile interfaces and how to apply mobile technology to solve common business needs. Although students may use the College's computer labs to complete their course work, it is highly recommended that students have access to an Android device or virtual machine to complete work outside of class. An Android device is not required for the course.

Prerequisites: CIS 111B with a C or better, or prior object-oriented programming experience and permission of the Instructor.

CIS 241 SERVER-SIDE WEB DEVELOPMENT 3-2-2

Students will learn how to develop dynamic web sites using the server-side technologies ASP.Net and Visual Basic .Net. The architecture of ASP.Net and the range of Web-based applications that can be developed using Microsoft's Visual Studio will be discussed. Students will gain hands-on experience with Visual Basic .Net as it is used for writing Web based applications for processing form data, accessing files on the server, and reading and writing to databases.

Prerequisites: CIS 140 and CIS 111B or permission of the instructor. Prior experience with the Visual Basic programming language is recommended but not required. Corequisite: CIS 245

CIS 243 INTEGRATED OFFICE SOFTWARE APPLICATIONS 3-3-0

In order to further develop word processing, spreadsheet, database, presentation graphics, and Internet skills, this course reviews, extends, integrates, and applies concepts previously learned. Desktop scanners and the Internet will be used to incorporate images into Microsoft Office documents. Decision making and critical thinking skills will be practiced through the use of simulations of typical documents and procedures as employed in the professional world.

(Also offered as OFM 243.)

Prerequisite: CIS 110 or OFM 112 or permission of coordinator or instructor.

CIS 244 PC DATA BASE MANAGEMENT SYSTEMS 3-2-2

This course is designed to introduce the student to the concepts involved in designing and using Microsoft Access. Topics to be covered in the course will include discussions of various types of data base structures and manipulations of the data base through the data base language.

Prerequisite: CIS 110 or CIS 155.

CIS 245 DATA BASE MANAGEMENT SYSTEMS/SQL3-2-2

This course is designed to introduce the student to the concepts involved in designing and using a data base management system. Topics to be considered in the course will include discussion of various types of data base structures, manipulations of a data base structure through applications, query techniques, and an investigation into a data base language.

Prerequisites: CIS 111 or CIS 1101 and either, CIS 110, CIS 155, or CIS 244

CIS 250 SQL SERVER PROGRAMMING 3-2-2

This course will introduce students to relational database management and development on the SQL Server platform. Although an overview of database design and optimization will be presented, the main topics pertain to developing databases on SQL Server software. The Transact-SQL language, querying and modifying data, indexing, optimization of data, joins and user defined functions (UDF) will be explored.

Prerequisite: CIS 244 or CIS 245 with "C" or better, or equivalent experience.

CIS 257 NETWORK PLANNING, PROJECT MANAGEMENT AND IMPLEMENTATION.....3-2-2

This course will provide a final capstone project experience on planning, implementing and managing a Local Area Network using Microsoft Server Administration and CISCO routing skills. The course

will also introduce students to key aspects of project management such as defining the project scope, identifying deliverables, establishing timelines and evaluating project cost. Additional topics will include a comparison of Microsoft Server to other network operating systems as well as an industry site visit to interview a Network Administrator.

Prerequisite (s): CIS 171, CIS 141, and CIS 258 or Permission of the Instructor

CIS 258 ADVANCED WINDOWS SERVER ADMINISTRATION AND SUPPORT 3-2-2

This course provides the students with the knowledge and skills necessary to install, configure, manage, and support a Windows infrastructure. Students will learn advanced deployment and configuration concepts, including the implementation of: Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Windows Internet Naming Service (WINS), network security, Remote Access Services (RAS), Internet Authentication Server (IAS), and Remote Installation Services (RIS). In addition, students will learn how to install, manage, configure and administer Windows Server 2008 R2/Windows 7 Active Directory. Virtualization of Student Servers will be employed throughout this course.

Prerequisite: CIS158 - Windows Server Administration and Support

CIS 275 NETWORK SECURITY FUNDAMENTALS 3-2-2

This course will introduce students to the basic elements of establishing a secure network, including security objectives, security architecture, security models and security layers. Students will analyze what elements contribute to high quality risk management, network security policy, and security training. This course focuses on the five security keys: Confidentiality, Integrity, Availability, Accountability, and Auditability. Successful completion of this capstone course prepares students to take appropriate industry certifications in the security field.

Prerequisites: CIS 171 and CIS 158 with C or better or equivalent experience. CIS 141 and CIS 156 recommended.

CIS 276 GAME & SIMULATION PROGRAMMING FOUNDATIONS3-2-2

This course introduces students to the necessary mathematical techniques and physical modeling principles for electronic game and simulation development. Students will learn mathematical tools underlying the development of gaming software algorithms. They will use a range of software products to implement these algorithms and modeling methods.

Prerequisites: CIS 111B, with a C or better.

CIS 277 GAME DESIGN STUDIO3-2-2

This is the first of the two Electronic Game & Simulation Design capstone courses. Students will work in teams to design a game using industry standard tools and procedures. The design of levels, characters, stories, game mechanics, user interfaces, and puzzles will be explored in depth along with techniques for usability and quality assurance testing. Students will be required to prototype and test small segments of their game to prove the viability of their design. All materials produced in this class will be used as the basis for developing a complete and functional game in Electronic Game & Simulation Design 5: Production Studio.

Co-requisite: CIS 276.

CIS 278 GAME PRODUCTION STUDIO4-2-4

This is the second of two Electronic Game & Simulation Design capstone courses. Students will work in teams to build a fully functional electronic game using industry standard tools and procedures. Students

will use the materials produced in Electronic Game & Simulation Design Development 4: Design Studio (CIS 277) as the basis for the game they will build in this course.

Prerequisites: CIS 276 and CIS 277 with a grade of C or better.

COUNSELING

COU 121 PSYCHOLOGY OF CAREER DEVELOPMENT2-2-0

This course is designed to give students practical ideas and methods as well as theoretical concepts for developing career plans and making satisfying vocational decisions. Through a variety of classroom activities, students learn more about themselves, what career fields may help them find fulfillment, and how to enter and progress in these fields.

CRIMINAL JUSTICE

CJS 100 INTRODUCTION TO CRIMINAL JUSTICE 3-3-0

The course introduces the student to the American system of criminal justice. Its growth and development will be examined with emphasis placed on the various subsystems of the criminal justice system (substantive and procedural criminal law; police, prosecution, defense, courts, institutional and community corrections; and the juvenile justice system). Additionally, contemporary issues that challenge the functional efficiency and effectiveness of the criminal justice system will be addressed. Students will learn the terminology of the field, have the opportunity to evaluate personal attitudes and values regarding crime and response to crime.

CJS 105 CRIMINAL LAW 3-3-0

An introduction to the origin and function of the substantive criminal law of Pennsylvania; a survey and analysis of the elements of major offenses in common law and under modern penal codes, and the available defenses; a consideration and discussion of leading judicial interpretations of penal codes and criminal law.

CJS 107 CRIMINAL PROCEDURE & RULES OF EVIDENCE3-3-0

This course provides an in-depth exploration of the laws and constitutional cases governing criminal procedure in the American criminal justice system. The course focuses on the "police phase" of the criminal process, including custody and seizures, arrests, interrogation, identification procedures. It also provides a survey of the rules of evidence in criminal proceedings, their origins and history, the use of both direct and circumstantial evidence in proving guilt or innocence, witness reliability, hearsay, and the use of inference. The course also highlights both procedural and evidentiary rules governing the investigative and prosecutorial phases of law enforcement, including the role of investigating grand juries, and the defense and police misconduct aspects of entrapment.

Prerequisites: CJS 100 and CJS 105

CJS 120 FORENSIC ACCOUNTING 3-3-0

Forensic Accounting is the application of accounting methods and financial techniques to assist in solving economic-based crimes. The course includes the discussion of criminal statutes relating to financial crimes, fraud investigation and prevention, techniques used in solving financial crimes, interviewing, rules of evidence, sources of information, forensic accounting procedures, and current issues in financial

investigations. (Also offered as ACC 120)

Prerequisite: ACC 115 with a minimum grade of C.

CJS 200 CRIMINAL INVESTIGATION 3-3-0

The theory of investigation, conduct at crime scenes, the collection, handling and preservation of criminal evidence and other criminal investigation practices and procedures, discussion of scientific aids and their uses in investigation; preparation of cases, emphasizing methods and problems of information and interrogation.

Prerequisite: CJS 100

CJS 201 INTRODUCTION TO CRIMINAL FORENSICS 4-3-1

This course will familiarize students with the basic principles and uses of forensic science in the context of the American criminal justice systems. Forensic science, which is the study and application of science to legal processes, will be related to the collection, examination, evaluation and interpretation of evidence. The field of forensics encompasses many areas in both the physical and social sciences. This course will focus on the application of modern science to physical evidence collection, preservation, and analysis, which, if properly utilized, can be crucial in the resolution of social and legal disputes. This course will review and illustrate through actual laboratory demonstration, basic applications and methodologies in the biological, physical, and behavioral sciences to questions of evidence and law.

Prerequisites: CJS 100. Completion of a CHE or BIO lab course prior to CJS 201 is recommended, but not required.

CJS 205 ETHICS AND THE AMERICAN CRIMINAL JUSTICE SYSTEM 3-3-0

"Ethics and The American Criminal Justice System" presents an introduction to the ethical issues arising in the law, to the methodology by which ethical deliberations are resolved, and to the personal-societal implications of ethical decision making. The course will focus upon the judicial system as an institution, the philosophy of the legal system-criminality, liability, and corrections, the role of law enforcement, and current legal issues.

(Core Goal 13) Prerequisite: CJS 100

CJS 220 CRIMINOLOGY 3-3-0

A study of crime and delinquency patterns, their causes, and remedial measures, emphasizing the social, economic, and psychological forces involved, including the role of treatment and law enforcement. (Also offered as SOC 220)

Prerequisites: CJS100

CJS 235 INTRODUCTION TO JUVENILE JUSTICE SYSTEM3-3-0

This course introduces the student to the origins and development of the juvenile justice system in the United States. Students will study the juvenile justice system and child welfare systems from historical, legal, and institutional perspectives. Students will become familiar with the substantive law of Pennsylvania in terms of delinquency and child abuse with some international comparisons. Problems and theories of delinquency, interdisciplinary communication and diversion of selected juvenile offenders from the formal justice system will be explored. Each component of the system: police, courts, probation and community corrections are analyzed and recommendations for improvement are considered. The community and the schools and their role in delinquency prevention will be covered. Lastly, there will be a study of the nature, magnitude, and social location of youth crime; analysis of casual theories, and an overview of programs aimed at delinquency prevention and control.

Prerequisite: CJS 100

CJS 240 THE CORRECTIONAL PROCESS 3-3-0

The concept, rationale, and administration of the adult correctional institution will be the focal point in this introductory course dealing with the American correctional process. Probation and parole and the role each plays in the total penal system will also be examined. The course will conclude with a look at what appears to be future alternatives in dealing with the offender in society.

Prerequisite: CJS 100

CJS 250 TERRORISM & COUNTERTERRORISM 3-3-0

Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values. (Also offered as EMP 250, POL 250, and SOC 250)

Prerequisite: A passing grade in at least one introductory level course in any of the following: CJS, HIS, POL, or SOC.

CJS 251 INTRODUCTION TO HOMELAND SECURITY.....3-3-0

This course will introduce students to the key vocabulary and concepts of homeland security. The course will cover the essential structures, functions, accountabilities, and working relationships of the principal governmental agencies charged with homeland security duties and missions, and will include an in-depth survey of the principal directorates and sub-agencies within the U.S. Department of Homeland Security. The course will cover the evolution of homeland security as a concept in its historical context, and students will be introduced to the body of federal, state, and local law, as well as international law, impacting the homeland security mission. Special attention will be devoted to key provisions of the USA PATRIOT Act of 2001, the Homeland Security Act of 2002, and the Emergency Management Reform Act of 2006. The course will survey and examine from an "all hazards" standpoint, the most critical natural and man-made threats confronting homeland security, and students will be introduced to the still-evolving "National Strategy for Homeland Security" as a statement of unified federal policy.

CJS 252 INTELLIGENCE ANALYSIS & SECURITY MANAGEMENT 3-3-0

This course examines intelligence analysis and its indispensable relationship to the prevention and mitigation of terrorist attacks, other kinds of man-made disasters, and natural disasters. The course explores key public and private-sector vulnerabilities in our national defense and homeland security infrastructures from an intelligence and counter-intelligence standpoint. Students will be exposed to and will discuss substantive management issues regarding the U.S. and international intelligence communities and how their roles and operations support the homeland security endeavor.

Prerequisite: CJS 251

CJS 253 TRANSPORTATION & BORDER SECURITY.....3-3-0

This course provides an in-depth view of modern border and transportation security. Specific topics of study will include security for ships and seaports; aircraft and airports; trains, ground transportation, and their related terminals; commercial trucking; pipelines and power transmission; bridges and tunnels; and major border-crossing control

points. Existing and emergent technologies needed to detect terrorists, their weapons, and inherent vulnerabilities in infrastructure, will be a special emphasis of the course, along with discussion of the legal, economic, political, and cultural aspects of transportation safety and border security.

Prerequisite: CJS 251

CJS 255 ORGANIZED CRIME 3-3-0

This course examines the problem of organized crime (OC) from an interdisciplinary perspective, including a series of key legal, law enforcement and social issues, with a focus on American OC and enterprise crime in comparative perspective. Topics will include: the concept and definition of OC; a range of theoretical perspectives on OC; the relationship between white collar, criminal organized crime, enterprise crime and non-criminal economic activity; historical origins; ethnic connections; international linkages; models of organized crime; major organized crime groups; major organized criminal activities; emerging organized criminal activities; the relationship of OC to public corruption; strategies for combating organized crime; and the future outlook. (Also offered as SOC 255.)

Prerequisites: CJS 100 or SOC 101, or permission of the Division Dean. CJS

CJS 260 SPECIAL STUDIES IN CRIMINAL JUSTICE 3-3-0

This course will explore topics and areas within the criminal justice field. Subject matter will vary from each semester and reflect an in-depth study of the particular issues being examined. A seminar approach will be employed in this course.

Prerequisites: CJS 100

CJS 265 PUBLIC SAFETY TECHNOLOGY 3-3-0

This course focuses on current themes in public safety technology, including such topics as: Computer Aided Dispatch, basic ideas of mobile radio technology, mobile data/mobile computer capabilities and functionality, public safety applications for Global Positioning technology, as well as emerging trends that will appear in the Public Safety arena in the next 3 to 5 years. An overview of standards governing communications systems, dispatchers, and other areas of public safety technology will also be covered. Topics will be covered at a non-technical level to provide the student with an overview and understanding of the technology rather than an in-depth examination of just a few specific items. Lectures will include live demonstrations of devices to reinforce key concepts and promote greater understanding. Students will prepare a summary paper in small groups on an emerging idea in public safety technology, based upon original research.

(Also offered as EMP 265 & FSC 265)

Prerequisite: FSC 100, EMP 100 or CJS 100, or permission of the Instructor or Director.

CJS 270 POLICE DEPT. ORGANIZATION & MANAGEMENT3-3-0

An introduction to concepts of organization and management as they relate to law enforcement. Topics include principles of structure, process, policy and procedure, communication and authority, division of work and organizational controls, the human element in the organization, and informal interaction in the context of bureaucracy. The course will deal with the history of policing in relation to organizational theory and practical innovation. It will explore the responsibilities of the police manager from the standpoint of the design and regulation of internal systems and procedures, the management of human resources, the management of capital plant and equipment, the budgetary and planning processes, functioning as part of a larger municipal bureaucracy, and inter-agency cooperation and coordination.

Prerequisites: CJS 100.

CJS 275 ADMINISTERING THE BUSINESS OF SECURITY 3-3-0

This course offers students an understanding of the role of management within a security organization. It describes techniques and offers practical methods that will help students achieve effective security department management. During the course, students will examine the following issues and topics: individual roles of security management personnel; policies and procedures; current computer applications that can help all aspects of the security function; the importance of security statistics; and how to 'sell' the importance of the security function to senior management.

CJS 280 COMPARATIVE CRIMINAL JUSTICE SYSTEMS..... 3-3-0

The course examines the evolution and operation of criminal justice systems in other nations and cultures. The course will focus on the development of criminal justice in response to social, historical and political factors. Beginning with a brief history of the world's legal systems, followed by an analysis of their key procedural and substantive similarities and differences. The course will then turn to a range of other associated topics including the administration and function of police, corrections and courts, the impact of customary law and immigration on heterogeneous cultures, and the increasing internationalization of both the incidence of crime and the administration of criminal justice.

(Also offered as POL 280.)

Prerequisites: CJS 100 or POL 101, or permission of the Division Dean.

CJS 299 INDEPENDENT STUDIES IN CRIMINAL JUSTICE3-3-0

DANCE

DAN 101 INTRODUCTION TO DANCE STUDIES. 3-3-0

This course provides an introduction to the study of dance at the college level. The course is designed for dance majors or anyone with a serious interest in pursuing dance studies. The course focuses on the development and care of the dancer's instrument. Students will learn and practice the fundamental principles of correct dance technique common to Western dance forms. The course addresses practical concerns of dance training including: injury prevention, cardiorespiratory fitness and endurance, strength training, stretching for flexibility, diet and nutrition, and caring for the dancing body. (Also offered as ESW 101)

(Core Goal 10)

Prerequisites: Students must have successfully completed or tested out of REA 017, REA 010, ESL 010, ENG 010. (Also offered as ESW 101)

DAN 102 FUNDAMENTALS OF MODERN DANCE I. 3-3-0

This course provides an introduction to the principles and practice of modern dance. Ongoing dance technique classes will incorporate aspects of modern and postmodern dance, dance improvisation, Bartenieff Fundamentals, Pilates mat work, and stretching and relaxation techniques. Through these movement experiences, students will develop their technical dance skills, learn basic concepts of dance design, and further their understanding and cultivation of the body as an instrument of expression. The course will provide a basis for understanding the aesthetic principles of modern dance through movement experiences, critical viewing and analysis of masterworks of modern dance choreography, and class discussions. The class will attend one or more live dance performances.

(Core Goals 7 and 10)

Prerequisites: Students must have successfully completed or tested out of REA 017 or REA 011 and ESL 010 or ENG 010.

DAN 103 FUNDAMENTAL OF MODERN DANCE II 3-3-0

This course is a continuation of DAN 102 Fundamentals of Modern Dance I. Students consolidate and refine their skills as they continue the study and practice of modern dance at the elementary level. The class will attend one or more live dance performances.

Prerequisite: Completion of DAN 102 with a grade of C or better.

DAN 104 MODERN DANCE I 3-3-0

This course is a continuation of DAN 103 and is designed to advance the student to the intermediate level of modern dance technique. Students will continue to refine their skills as they increase their movement vocabularies. Warm-up exercises, center and traveling combinations will increase in complexity. The course includes anatomical information of particular importance to sound modern dance technique. The class will attend one or more live dance performances.

(Core Goal 7)

Prerequisites: Completion of DAN 103 with a grade of C or better or permission of instructor.

DAN 110 INTRODUCTION TO DANCE AS ART IN AMERICA. ... 3-3-0

This course offers the basis for understanding, appreciating, and participating in dance as an art form. It provides an overview of dance as artistic expression in 20th and 21st century America, with attention given to the artistic and cultural influences that have shaped American concert dance. Students will examine the work of major figures in American concert dance including Isadora Duncan, Doris Humphrey, Martha Graham, Jose Limon, Katherine Dunham, George Balanchine, Alvin Ailey, Merce Cunningham, Yvonne Rainer, Steve Paxton, and Bill T. Jones. In this course, students will view, discuss, and analyze significant choreographic works in class. Through movement activities, students will gain a kinesthetic understanding of various dance styles and will explore the art and craft of dance making as they use movement to articulate their personal vision of dance. The class will attend a live dance performance and write about their experiences.

(Core Goal 7)

Prerequisites: Students must have successfully completed or tested out of REA 017, REA 011, ESL 011, ENG 011.

DAN 121 FUNDAMENTALS OF BALLET I 3-3-0

This course provides an introduction to the theory, practice, and aesthetic foundations of classical ballet. Students will learn the foundations of classical ballet technique emphasizing correct body placement. The class will include exercises at the barre, center work, simple turns, jumps, and traveling movements. The course will include an overview of ballet history.

(Core Goal 7 and 10)

Prerequisite(s): Students must have successfully completed or tested out of REA 017 or REA 011, and ESL 010 or ENG 010.

DAN 122 FUNDAMENTALS OF BALLET II 3-3-0

This course is a continuation of DAN 121 Fundamentals Ballet I. Students consolidate and refine their skills as they continue the study and practice of classical ballet at the elementary level. The class will include exercises at the barre, center work, turns, jumps, and traveling movements.

Prerequisites: Completion of DAN 121 with a grade of C or better.

DAN 123 BALLET I 3-3-0

This course is a continuation of DAN 122 and is designed to advance the student to the intermediate level of classical ballet technique. Students will continue to refine their skills as they increase their vocabulary of classical ballet steps. Exercises at the barre, center work, and traveling combinations will increase in complexity. The course includes basic anatomical information of particular importance to sound ballet technique.

(Core Goal 7)

Prerequisites: Completion of DAN 122 with a grade of C or better or permission of instructor.

DAN 131 FUNDAMENTALS OF JAZZ DANCE I 3-3-0

This course provides an introduction to the practice, aesthetics, and historical foundations of jazz dance. Classes will include center warm-up exercises and floor stretches, simple turns, jumps, and traveling movements, and more complex center combinations. The course will include an overview of jazz dance history.

Prerequisites: Students must have successfully completed or tested out of REA 017, REA 011, ESL 010, ENG 010.

DAN 132 FUNDAMENTALS OF JAZZ DANCE II3-3-0

This course is a continuation of DAN 131 Fundamentals of Jazz Dance I. Students consolidate and refine their skills as they continue the study and practice of jazz dance at the elementary level.

Prerequisites: Completion of DAN 131 with a grade of C or better.

DAN 134 FUNDAMENTALS OF HIP HOP DANCE I.....3-3-0

This course provides an introduction to the theory, practice, aesthetics, and historical foundations of hip hop dance. Students will explore the roots of funk and hip hop dance in the social fabric of African, Caribbean, and Afro-Latin cultures while examining reinventions of ragtime, swing, and rock n' roll throughout the 20th century in America. Students will experience hip hop's manifestations across media by viewing dance films, listening to music, and reading essays and books. Historical and philosophical perspectives will be integrated into movement activities. Through movement, students will be introduced to the basic Laban principles of time, space, energy and the kinesphere. Students will explore personal, social, and cultural dynamics of race and the diversity of hip hop culture in the United States as well as political, social, and economic issues in hip hop abroad.

Prerequisites: Students must have successfully completed or tested out of ENG 010 or ESL 010 and REA 010 or REA 017.

DAN 135 FUNDAMENTALS OF HIP HOP DANCE II 3-3-0

This course is a continuation of DAN 134 Fundamentals of Hip Hop Dance I. Students consolidate and refine their skills as they continue the study and practice of hip hop dance at the elementary level.

Prerequisites: Completion of DAN 134 with a minimum grade of a C.

DAN 151 DANCE IMPROVISATION 3-3-0

This course is designed to help students discover and develop their creative movement potential. Through guided movement exercises, the class will explore the basic movement elements of space, time, weight, and flow and the spontaneous use of movement through structured improvisations derived from movement concepts, games, imagery, media sources, chance procedures, and various improvisational practices.

(Core Goal 7)

Prerequisites: Students must have successfully completed or tested out of REA 017, REA 011, ESL 011, ENG 011. DAN 101 recommended as Prerequisites or co-requisite.

DAN 155 DANCE PERFORMANCE ENSEMBLE I 3-3-0

This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph and/ or perform at least one dance for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. Previous dance experience is expected.

DAN 156 DANCE PERFORMANCE ENSEMBLE II 3-3-0

This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph and/ or perform at least one dance for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. Previous dance experience is expected.

DAN 157 DANCE PERFORMANCE ENSEMBLE III 3-3-0

This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph and/or perform at least one dance for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. Previous dance experience is expected.

DAN 158 DANCE PERFORMANCE ENSEMBLE IV 3-3-0

This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph and/ or perform at least one dance for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. Previous dance experience is expected.

DAN 161 DANCE REPERTORY AND PERFORMANCE I. 3-3-0

This course provides students with a structured rehearsal and performing experience. Students will learn one or more dances and perform for at least one public performance during the semester. Repertory will vary each semester. Students will be required to participate in performances and workshops and to attend at least one dance performance outside of class time. Previous dance experience is expected.

Prerequisites: DAN 104 Modern Dance I or permission of instructor. Students should have previous dance experience and the ability to learn and perform new material. The instructor will evaluate each student's preparedness in the first week of classes. Co—Requisite: Students must be enrolled in a dance technique course during the same semester.

DAN 162 DANCE REPERTORY AND PERFORMANCE II.. 3-3-0

This course provides students with a structured rehearsal and performing experience. Students will learn one or more dances and perform for at least one public performance during the semester. Repertory will vary each semester. Students will be required to participate in performances and workshops and to attend at least one dance performance outside of class time. Previous dance experience is expected.

Prerequisites: DAN 104 Modern Dance I or permission of instructor. Students should have previous dance experience and the ability to learn and perform new material. The instructor will evaluate each student's preparedness in the first week of classes. Co-Requisite: Students must be enrolled in a dance technique course during the same semester.

DAN 163 DANCE REPERTORY & PERFORMANCE III3-3-0

This course provides students with a structured rehearsal and performing experience. Students will learn one or more dances and perform for at least one public performance during the semester. Repertory will vary each semester. Students will be required to participate in performances and workshops and to attend at least one dance performance outside of class time. Previous dance experience is expected.

Prerequisites: DAN 104 Modern Dance I or permission of instructor. Students should

have previous dance experience and the ability to learn and perform new material. The instructor will evaluate each student's preparedness in the first week of classes. Co-Requisite: Students must be enrolled in a dance technique course during the same semester.

DAN 164 DANCE REPERTORY AND PERFORMANCE IV.....3-1-2

This course is a continuation of DAN 104. Students refine their skills and advance their technique as they continue the study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances.

Prerequisite(s): DAN 163

Co-requisite(s): Students must be enrolled in a dance technique course during the same semester.

DAN 204 MODERN DANCE II 3-3-0

This course is a continuation of DAN 104. Students refine their skills and advance their technique as they continue the study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances.

Prerequisites: Completion of DAN 104 with a grade of C or better.

DAN 205 MODERN DANCE III..... 3-3-0

This course is a continuation of DAN 204. Students continue to refine their skills and increase their strength, flexibility, and stamina as they advance their technique through the continued study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances.

Prerequisites: Completion of DAN 204 with a grade of C or better.

DAN 206 MODERN DANCE IV 3-3-0

This course is a continuation of DAN 205. Students continue to refine their skills and increase their strength, flexibility, and stamina as they advance their technique through the continued study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances.

Prerequisites: Completion of DAN 205 with a grade of C or better.

DAN 223 BALLET II 3-3-0

This course is a continuation of DAN 123. Students refine their skills and advance their technique as they continue the study and practice of classical ballet at the intermediate level.

Prerequisites: Completion of DAN 123 with a grade of C or better.

DAN 224 BALLET III 3-3-0

This course is a continuation of DAN 223. Students continue to refine their skills and increase their strength, flexibility, and stamina as they advance their technique through the continued study and practice of classical ballet at the intermediate level.

Prerequisites: Completion of DAN 223 with a grade of C or better.

DAN 225 BALLET IV 3-3-0

This course is a continuation of DAN 224. Students continue to increase their proficiency in classical ballet technique as they hone their movement skills, increase their physical capacity, and refine their skills of artistic expression through the continued study and practice of classical ballet at the intermediate level.

Prerequisites: Completion of DAN 224 with a grade of C or better.

DAN 251 DANCE COMPOSITION 3-3-0

This course provides an immersion into the creative act of choreography. Through short in-class assignments and extensive work outside of

class, students will investigate both form and content in choreography. Students will create and perform solo and group studies based on choreographic problems.

Prerequisites: Completion of DAN 151 with a grade of C or better.

DENTAL HYGIENE

DHG 100 THEORY AND PRACTICE OF DENTAL HYGIENE I ..4-3-6

A course designed to introduce the dental hygiene student to the profession of dental hygiene, theories and rationales for basic dental hygiene care procedures and the prevention of dental disease, ethical principles, infection control, risk factors for oral disease and treatment planning. Practical application of fundamental concepts and skills are applied in the clinical setting on student partners with emphasis on workplace safety, hazards management, ergonomics, assessment and instrumentation.

Prerequisites: Completion of Special Admission Guidelines and admission to the Dental Hygiene Program. Corequisites: DHG 111 and DHG 155

DHG 111 DENTAL ANATOMY 2-2-0

This course is designed to familiarize the dental hygiene student with all phases of dental anatomy. Topics of study include gross anatomy, nomenclature, eruption sequence, morphology and physiology of the oral structures with emphasis on the primary and permanent dentitions, occlusion, an overview of the temporomandibular joint, and anomalies of the oral structures. The coronal structure and root morphology for individual teeth will be addressed and related to direct patient care procedures.

Prerequisites: Completion of Special Admission Guidelines and admission to the Dental Hygiene Program. Corequisites: DHG 100 and DHG 155

DHG 155 DENTAL RADIOLOGY 2-1-3

This course enables the dental hygiene student to acquire the knowledge, skills, and attitudes necessary to produce dental radiographs of diagnostic quality with minimum patient exposure to radiation. Topics of study include the principles of radiation physics, radiation biology, radiation safety, radiographic technique, processing, patient management, quality assurance, patient selection criteria, mounting and evaluation, recognition of anatomic landmarks and common radiographic findings and alternate imaging modalities. A laboratory component provides the student with the opportunity to learn and practice radiology skills on simulation manikins in preparation for operating competently in the clinic environment.

Prerequisites: Completion of Special Admission Guidelines and admission to the Dental Hygiene Program. Corequisites: DHG 100 and DHG 111

DHG 158 THEORY AND PRACTICE OF

DENTAL HYGIENE II... 5-2-12

This course is designed to provide the dental hygiene student with the opportunity to expand knowledge and experience in planning and providing oral health services. Topics include nutritional counseling, instrumentation, prevention education and communication, desensitization, tobacco cessation, ethics as well as the hygienist's role in dental specialties. Focus is placed on the student's development of skills in communication and treatment of patients through the lifespan as well as functioning in clinic in an effective and efficient manner. Students provide educational and clinical services with an emphasis on comprehensive care for child and adult clients at the Central Campus' dental hygiene clinic.

Prerequisites: All first semester courses in the Dental Hygiene Program of Study Corequisites: DHG 159 and DHG 161

DHG 159 HISTOLOGY AND PATHOLOGY OF THE ORAL TISSUES 3-3-0

This course presents the development and microscopic anatomy of the cells, tissues and organs of the oral cavity. Building on the concepts of general histology and embryology, the nature of disease is addressed with respect to etiology, mechanism of disease formation and the body's response to injury. The clinical presentation of basic disease processes that affect the oral cavity and the clinical and histological recognition of oral neoplasia are emphasized.

Prerequisites: All first semester courses in the Dental Hygiene Program of Study.
Corequisites: DHG 158 and DHG 161

DHG 161 PERIODONTICS I 2-2-0

This course covers the study of the microscopic and clinical aspects of the normal and diseased periodontal tissues. Utilizing the knowledge of normal tissues, the students will learn to recognize the changes that occur in periodontal disease at the clinical and microscopic level. Students will apply this background knowledge to classify periodontal disease using the American Academy of Periodontology Classification System.

Prerequisites: All first semester courses in the Dental Hygiene Program of Study.
Corequisite: DHG 158

DHG199 IND. STUDY IN DENTAL HYGIENE 3-3-0

DHG 224 MATERIALS IN DENTISTRY 2-1-3

This course is designed to provide students with a survey of dental materials and procedures, their reasons for use, proper technique and dental application. The scope of study includes gypsum products, impression materials, dental cements, amalgam, synthetic resins, nightguard vital bleaching, athletic mouthguards, prosthetics, finishing and polishing restorations, pit and fissure sealants, digital photography and advanced instrumentation. Laboratory sessions provide students with hands-on experience with selected dental material procedures and instrumentation.

Prerequisites: All second semester courses in the Dental Hygiene Program of Study.

DHG 226 DENTAL PAIN CONTROL 2-1-3

The course is a study of the basic and current concepts in the administration of local dental anesthetics. Topics examined include the mechanism of action, local and systemic effects, tissue diffusion and toxicity of anesthetic agents used in dentistry. Patient assessment including medical considerations, apprehension and pain threshold will be evaluated for determining the indications and contraindications of dental pain control. Selection of appropriate anesthetic agents and proper administration techniques will be emphasized. The pharmacology, principles of nitrous oxide analgesia administration, patient considerations and legal issues will be discussed.

Prerequisites: DHG 224. CorequisitesE: DHG 228 and DHG 261

DHG 228 THEORY AND PRACTICE OF DENTAL HYGIENE III 8-4-16

The course introduces the student to the general pathology and physiology of relevant diseases and conditions that may present in the clinical setting. Discussion includes the methods of treatment and the oral health impact of the disease or treatment. The recognition and management of medical emergencies will also be examined. Special emphasis will be given to diseases, condition and drugs of importance in clinical dentistry. Further, this course is designed to broaden the realm of clinical procedures performed by the dental hygiene student and to enhance the student's abilities to integrate basic, dental and psychosocial sciences in evaluating, planning and implementing a comprehensive dental hygiene treatment plan for varied patient populations.

Prerequisites: DHG 224. Co-requisites: DHG 226 and DHG 261

DHG 253 COMMUNITY DENTISTRY 2-2-0

This course is designed to introduce the student dental hygienist to the knowledge and skills necessary to promote oral health in the community. Topics include an overview of public health and its relationship to community dental health, epidemiology and prevention of oral disease, factors affecting the delivery, financing and utilization of dental services, planning community dental programs, and basic research and statistical concepts. Students will apply course content to assess, design, implement and evaluate a community dental health program.

Prerequisites: All third semester courses in the Dental Hygiene Program.
Corequisite: DHG 258

DHG 258 THEORY AND PRACTICE OF DENTAL HYGIENE IV 6-2-16

This course is designed to prepare students to make the transition into dental hygiene practice. Emphasis is placed on new technologies in oral health care, genetic risk factors for periodontal diseases, periodontal disease as a potential risk factor for systemic diseases, ethical and legal considerations in clinical practice, career options and current issues in dental hygiene.

Prerequisites: All third semester courses in the Dental Hygiene Program of Study.
Corequisite: DHG 253

DHG 261 PERIODONTICS II 2-2-0

The major emphasis of this course is on treatment planning (intraoral photographs, periodontal charting, occlusal analysis, patient education) and therapy (pain control, chemotherapeutic agents, site specific drug therapy, host modulation drug therapy, periodontal surgery, periodontal packs, sutures) of the periodontal patient.

Prerequisites: All second semester courses in the Dental Hygiene Program of Study.
Co-requisite: DHG 228

DHG 271 PROFESSIONAL ISSUES IN DENTAL HYGIENE I 1-1-0

The course is a self-directed, instructor guided research course that enhances student knowledge in a variety of dental and dental hygiene topic areas. Students will choose from a variety of topics suggested by and in collaboration with the instructor. The topic list will be generated following evaluation of current research and issues in dentistry and dental hygiene. Topics may include evidence-based treatment planning, product evaluation, trends in patient education strategies, impact of periodontal disease on systemic conditions, and periodontal disease evaluation using recently released American Academy of Periodontology guidelines; emphasis is placed on using technology in order to conduct research.

Co requisite: Current student or graduate of an accredited dental hygiene program with an active license.

ECONOMICS AND FINANCE

ECO 110 ELEMENTS OF ECONOMICS 3-3-0

Students will develop economic literacy in both macro economics (business cycles, inflation, unemployment, etc.) and microeconomics (markets, competition, poverty, pollution, etc.). Business majors planning to transfer may not substitute this course for ECO 121 Macroeconomics or ECO 122 Microeconomics.

(Core Goals 2 and 9)

Prerequisites: Students must have successfully completed or tested out of: ENG 011 or ESL 011, and MAT 010

ECO 111 PERSONAL FINANCE 3-3-0

Students will learn the management of personal finances, and how to solve personal financial problems. Topics include saving, borrowing, purchasing life, health and property insurance, social security, home buying, buying stocks and bonds, and estate planning.

ECO 115 PRINCIPLES OF PERSONAL INVESTING. 3-3-0

Students learn both a conceptual and applied approach to personal investments. Financial theory is used as a practical guide to understanding the workings of financial markets. Topics include the investment risk/return relationship, debt and equity instruments, sources of investment information, efficient markets, managing your portfolio, and investment companies.

ECO 117 INTRODUCTION TO ENVIRONMENTAL ECONOMICS 3-3-0

Students will learn how managing natural resources while maintaining a healthy environment presents a significant challenge in a capitalistic economy. Students will apply economic tools and principles to environmental policy making. The course integrates analysis of current economic policy, examination of human impact on the planet, ethical decision-making, and development of sustainable policy recommendations with the constraint of scarce resources in a market economy. Topics include water and air pollution, energy, climate change, national parks, and human health issues.

(Core Goals 9, 11, 12 and 13)

Prerequisite: students must have successfully completed or tested out of MAT 011, ENG 011 or ESL 011, and REA 017 or REA 011.

ECO 121 MACROECONOMICS 3-3-0

Students are introduced to the basic economic problem, the study of economics, and the American capitalist market system. Macroeconomic topics discussed are the business cycle, inflation, unemployment, economic growth, and government policies for stability and growth.

(Core Goals 2, 5 and 9) (ECO 121 and ECO 122 together meet Core Goal 11)

Prerequisites: Students must have successfully completed or tested out of ENG 011 or ESL 011, and MAT 011

ECO 122 MICROECONOMICS 3-3-0

Students are introduced to the American capitalist market system. Microeconomic topics discussed are markets, pricing, competition, and resource allocation both domestically and internationally. Also discussed are government policies directed at solving problems in these areas.

(Core Goals 2, 5 and 9) (ECO 121 and ECO 122 together meet Core Goal 11)

Prerequisite: Students must have successfully completed or tested out of ECO 110 or ECO 121.

ECO 130 ECONOMICS OF GLOBALIZATION 3-3-0

Students investigate the forces shaping the global economy including the principles of global economics that drive international trade (comparative advantage, tariff/non-tariff barriers, and trade history), international finance (balance of trade and exchange rates), international capital and labor flows, and world-wide economic development. Also studied will be the international organizations created to facilitate global economic integration.

Prerequisites: Students must have successfully completed or tested out of MAT 011 and ECO 110, or ECO 121, or ECO 122

ECO 211 PRINCIPLES OF FINANCE 3-3-0

Students analyze financial systems, financial investments, and business finance. Topics include money, banking and financial markets, Federal Reserve operations and policy, saving and investing, interest rate determination, securities markets, and business financial data and analysis. The course provides an overview of the field of finance for those seeking an introduction to the principles of financial analysis or for the non-finance business major.

Prerequisites: Students must have successfully completed or tested out of ACC 115. ACC 111 may be substituted.

ECO 221 MONEY AND BANKING 3-3-0

Students will analyze the American financial system. Topics discussed are financial markets, monetary theory and policy, organization and control of the banking system, bank functions and operations, and the operation of the Federal Reserve System.

Prerequisite: ECO 121 and ECO 122

EDUCATION

EDU 100 INTRODUCTION TO EDUCATION 3-3-0

This course is designed to give prospective teachers an introduction to education, including historical, ethical, legal, and theoretical perspectives, cultural influences, as well as classroom management techniques. While in class, students will participate in various instructional strategies both individually and in group settings. The course requires students to complete 20 hours of field experience/ observation in an early childhood, elementary, or secondary school setting in order to reflect on present-day practices and the diverse roles and responsibilities of teachers in today's world. This experience will help prospective teachers to confirm their career choice. Students will also apply for all necessary child care background clearances.

(Core Goals 2, 5 and 9)

EDU 114 INFANT AND TODDLER DEVELOPMENT. 3-3-0

This course is designed to acquaint students and parents with the growth and developmental patterns of infants and toddlers. It will enable students to explore the manner in which children learn to relate to their environment. In addition, best methods of building relationships and interactions with infants and toddlers will be studied.

EDU 120 TEACHING WITH TECHNOLOGY..... 3-3-0

This course will give students the opportunities to explore, utilize, evaluate, and integrate the computer and technology into their classrooms and curriculum. Students will be involved in many aspects of this integration, including lesson plan writing and unit designing. Students will develop the skills for enriching their classrooms with computers and technology. (Also offered as CIS 120.)

EDU 140 DAY CARE PRACTICUM6-15-0

This course provides field experience for students in the Certificate Programs in Day Care. Students spend 15 hours per week in a day care center under the direction of a staff member. They learn how to communicate with young children, plan an appropriate program, establish a routine and deal effectively with parents. Students will be supervised by a faculty member from the college. Students are responsible for transportation.

Prerequisite: Students should complete other requirements in the child care certificate program prior to registering for this course. Co-requisite: It is strongly recommended that this course be taken in conjunction with EDU 233, Early Childhood Curriculum. If, for any reason, the student is not able to do that, s/he should discuss this issue with the Coordinator of Education.

EDU 210 TEACHING YOUNG CHILDREN: AN INTRODUCTION TO EARLY CHILDHOOD EDUCATION3-3-0

This course is an introduction to the field of early childhood education and care. It provides a broad overview to the history, philosophy and theories of development as they relate to current best teaching practices. With the increased attention to different kinds of educational standards, the course is directly linked to the NAEYC Learning Standards, the Code of Ethics and the PA Learning Standards for Early Childhood.

Students will examine the teacher's role in creating responsive, multicultural, and inclusive environments for young children, as well as the importance of play in the learning process will be stressed. The development of observation skills combined with practical experience will aid the student in documentation of young children's thinking and behavior during the field experience component of the class. Health and safety in the early childhood environment, classroom management strategies, and communication skills will also be discussed. Throughout the course, discovering who you are in the lives of children will assist in the process of becoming an early childhood professional.

EDU 213 WORKING WITH SPECIAL NEEDS STUDENTS 3-3-0

An introductory course that provides students with an overview of the historical perspective as well as current issues and practices related to special education. Students will learn about laws that affect students with special needs and the classification of exceptionalities identified by the laws. Students will acquire knowledge of definitions, terminology, and assessment tools that relate to special education. The focus will be on the types of accommodations and adaptation that a teacher should make to support students with special needs to ensure their success. Each student will be assigned to a public school special education classroom for the purpose of gaining a first-hand knowledge of the current state of the art of special education.

EDU 224 MUSIC FOR YOUNG CHILDREN 3-3-0

A study of the musical development of children and the materials that will best reveal the creativity in each child will be discussed. Topics covered include the child's voice and singing, listening, body movement and Orff-based performance experiences. Students will learn how to make music an important addition to the curriculum.

EDU 225 GUIDING CHILDREN'S READING DEVELOPMENT 3-3-0

This course covers the full range of teaching reading from emergent literacy skills through elementary school. Included in the course are both theory and practical applications of emergent literacy, word recognition skills, different approaches to teach reading and diagnostic techniques. Students are given practical experience and learn to design reading lessons for children.

Prerequisite: EDU 100

EDU 226 ART FOR YOUNG CHILDREN 3-3-0

The developmental stages of children's art will be explored. Emphasis will be placed on the creative expression of young children through basic art media. Attention will be given to the correlation of art with other school activities.

EDU 227 TEACHING MATHEMATICS TO CHILDREN 3-3-0

This course is designed to teach students how to teach mathematics skills from pre-numbers through elementary school skills. Math readiness skills, the four basic math processes, fractions, geometry, decimals, and the metric system are covered. The course also teaches students to use manipulatives in the teaching of mathematics.

EDU 228 LITERATURE IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION 3-3-0

This is a required course for students who are in the Education in the Early Years: Birth through Fourth Grade Program. It includes a comprehensive examination of children's literature including a variety of genres, authors, and illustrators. Students will examine authors' literary styles and techniques and learn how to include children's literature in every content area of the curriculum. In addition, students will become

familiar with literary elements and authors' uses of them to achieve a specific purpose. They will develop skills in the use of storytelling and dramatization. Students will learn how to assess the quality and appropriateness of children's literature for various ages.

Prerequisite: EDU 100

EDU 229 TEACHING OF SCIENCE IN THE PRESCHOOL AND ELEMENTARY GRADES..... 3-3-0

A course dealing with the content, methods and materials used in the teaching of science to children. Students will participate in hands-on science activities.

EDU 233 EARLY CHILDHOOD CURRICULUM AND ADMINISTRATION 3-3-0

Early Childhood Curriculum is a comprehensive course that addresses all aspects of teaching young children based on the framework of the Creative Curriculum. The Creative Curriculum defines what to teach, why the content and skills are appropriate and where, when and how to teach effectively. It is linked to assessment and families, and based in current theory and research. We explore both the Infant/Toddler and Preschool age groups. Throughout the course, students will be exposed to various approaches to curricula with emphasis on emergent curriculum. Students will be expected to develop appropriate curricular strategies to be used in any early childhood program.

It is highly recommended that this course be taken with EDU 140 or EDU 250.

EDU 245 CONNECTING FAMILIES, SCHOOLS AND COMMUNITIES 3-3-0

This course, designed for Education majors, will allow students to explore the concept of family, beginning with an understanding of their own families and moving on to diverse family structures, communication styles, parenting styles, family roles, and community engagement. Students will learn how to create meaningful relationships with families in order to enhance learning opportunities for children. In addition, students will investigate community organizations that support families and schools in order to develop community connections and be able to provide information to families.

(Core Goals 5 and 12)

Prerequisite: Students must have successfully tested out of ENG 010 or ESL010, ENG 011 or ESL 011, REA 010 or REA 014, REA 011 or REA 017 and ENG 101

EDU 250 STUDENT TEACHING 6-15-0

This course provides field experience for students in the Education in the Early Years Program: Birth through Fourth Grade. It acts as a capstone course for this program. Students spend 15 hours per week observing, planning and implementing their plans in an early childhood classroom under the daily supervision of an experienced teacher. A faculty member from the College oversees the entire placement, arranging for the placement, orienting the on-site teacher and director, observing the student teacher on a regular basis, and providing feedback to the student teacher based on the observations. Transportation is the responsibility of the student. This course is taken at the end of the program in conjunction with EDU 233, Early Childhood Curriculum. Students need permission of a faculty member or advisor before registering for student teaching. (A student must get permission of student teacher supervisor.)

Pre-requisite: All required courses in the Education in the Early Years Program: Birth through Fourth Grade should be taken prior to this course or at the discretion of the Education coordinator. Co-Requisite: EDU 233

EDU 299 INDEPENDENT STUDY IN EDUCATION 3-3-0

EMERGENCY MANAGEMENT PLANNING

EMP 100 EMERGENCY PLANNING 3-3-0

This course will introduce the student to the concepts of Emergency and Crisis Planning. The course provides an conceptual overview of planning as a means to anticipate, prevent, prepare for, respond to, and recover from any incident. The course will analyze the planning process in its constituent parts, such as hazard analysis, resource assessment, plan development, coordination with others, and plan implementation, training, and education. Students will work in an interactive program to establish a planning process for companies or municipalities. Students will learn from actual case experiences, and will sharpen their understanding and relevant skills.

EMP 110 INCIDENT MANAGEMENT 3-3-0

This course is designed to provide the student with an overview of the 'Incident Command' – 'Unified Command' Structure. Students will analyze incident management from various perspectives, including those of local fire departments, in industrial settings, and through the use of case studies such as the Oklahoma City bombing. Students will work interactively to prepare for future roles and responsibilities as those charged with a management role in incident command, control or mitigation. Moreover, the student will learn from the experiences of others, sharpening their understanding and skills relative to the dimensions of emergency incident management.

EMP 120 SEARCH & RESCUE 3-2-2

This is a skills-based course that will provide the student with practical knowledge concerning the general responsibilities, skills, abilities, and equipment needed by those involved in search and rescue efforts. The course will also provide the student with practical exercises and search missions where they will be required to utilize the proper equipment and methods. The content of the course includes topics in three major areas: survival, support, and search and rescue. The course will afford the opportunity to discuss and investigate the role of search and rescue in relation to incident management as well as the roles and responsibilities of search and rescue leaders. Students will learn from the experiences of others through actual case analysis.

EMP 200 SEMINAR IN EMERGENCY MANAGEMENT 1-1-0

This course will provide the student with a forum for discussion of the basic need for emergency management, emergency planning and incident management. This course will also offer an overview of the roles and responsibilities of the Incident Safety Officer in preparation for a series of response drills to implement student knowledge in these areas. In addition, a functional exercise utilizing advanced interactive simulation software will be conducted to confirm the course outcomes and test student competencies.

Prerequisites: EMP 100 and EMP 110.

EMP 210 LEADERSHIP & INFLUENCE IN EMERGENCY RESPONSE 3-3-0

This course is intended to serve as a 4th semester capstone course in the EMP Program. It will provide the student with an overview of the theories and concepts of leadership development, as well as to inculcate higher-order leadership skills and competencies. The course will examine leadership from a core values approach, systems (chain of command) approach, a functional approach, and a skills approach (motivation, supervision and communications). Students will study the process approach by looking at leadership as a process of influencing

an organization or group to achieve desired ends.

Prerequisites: EMP 100 and EMP 110.

EMP 250 TERRORISM & COUNTERTERRORISM 3-3-0

Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values. (Also offered as POL 250, SOC 250, and CJS 250.)

Prerequisite: A passing grade in at least one introductory level course in any of the following: CJS, HIS, POL, or SOC.

EMP 265 PUBLIC SAFETY TECHNOLOGY 3-3-0

This course will focus on current themes in public safety technology, to include such topics as: Computer Aided Dispatch, basic ideas of mobile radio technology, mobile data/mobile computer capabilities and functionality, public safety applications for Global Positioning technology, as well as emerging trends that will appear in the Public Safety arena in the next 3 to 5 years. An overview of standards governing communications systems, dispatchers, and other areas of public safety technology will also be covered. Topics will be covered at a non-technical level to provide the student with an overview and understanding of the technology rather than an in-depth examination of just a few specific items. Lectures will include live demonstrations of devices to reinforce key concepts and promote greater understanding. Students will prepare a summary paper in small groups on an emerging idea in public safety technology, based upon original research. (Also offered as CJS 265 and FSC 265.)

Prerequisite: FSC 100, EMP 100 or CJS 100, or permission of the instructor or director.

EMP 299 INDEPENDENT STUDY IN EMERGENCY PLANNING 3-3-0

ENGINEERING SCIENCE

EGR 102 INTRODUCTION TO ENGINEERING 3-3-0

This course provides solid foundation of skills to solve engineering problems. Students demonstrate problem solving techniques with spreadsheets, dimensions and units; use modeling techniques and interpret validity of experimental results. Students design projects on multi-discipline teams. The course introduces professional and societal issues appropriate to engineering. Various forms of technical communication are emphasized.

Prerequisite: Students must have successfully completed or tested out of MAT 011 and REA 011

EGR 111 ENGINEERING COMPUTATIONS 3-2-2

In engineering environments, it is critical to recognize when and how a computer can assist in the analysis of a problem. This course will introduce the key concepts of good programming practice and show how computer programming directly relates to solving engineering problems. Multiple programming environments are used, each one emphasizing the same core concepts, yet customized to support a specific category of engineering problem application.

Prerequisite: MAT 100 or equivalent.

EGR 115 ENGINEERING GRAPHICS 3-2-2

This course covers the basics of graphical solid-model design from conception through to final product. Drawing dimensioning and tolerancing are also discussed, as is the solution to 3D problems and spatial analysis through descriptive geometry.
Prerequisite: MAT 100 or equivalent.

EGR 203 ENGINEERING STATICS.....3-2-2

This course describes the mechanical behavior of materials and systems in equilibrium using Newton's laws of motion. Students will learn the principles of force and moment equilibrium, construction and analysis of free-body diagrams, understanding distributed forces, friction, and structural response.
Prerequisite: EGR 111, EGR 115, MAT 190 or equivalent and PHY 151.

EGR 204 ENGINEERING DYNAMICS3-2-2

This course is a vector approach to the study of the rectilinear and curvilinear motion of particles and rigid bodies as described by rectangular, polar, and path coordinates and the study of the forces that produce such motion as described through the application of Newton's second law of motion, work-energy relationships, and impulse and momentum principles, including rigid body rotation and relative motion.
Prerequisites: EGR 203 Co-requisite: MAT 201

EGR 210 DIGITAL SYSTEMS 4-3-3

This course introduces the fundamentals of digital systems design. It is designed as a foundation course for those pursuing studies leading to a degree in electrical, electronics or computer engineering.
Prerequisites: EGR 111 and PHY 152

EGR 211 CIRCUITS AND DEVICES. 4-3-3

This course covers the fundamental laws and procedures of electric circuit analysis including Kirchhoff's laws, superposition, and Thevenin's and Norton's theorems. Elementary transients, sinusoidal steady-state analysis, impedance, power transfer and operational amplifiers are covered.
Prerequisites: EGR 111, MAT 190 Corequisites: MAT 201 and PHY 152

EGR 213 MECHANICS OF MATERIALS..... 3-2-2

This course covers the deformation of beams and shafts using energy methods and structural analysis, the analysis of stress and strain, stress-strain relations, shear and moment diagrams, stress and strain transformations, failure criteria and elementary plasticity.
Prerequisites: EGR 203 and MAT 201

EGR 214 LINEAR ELECTRICAL SYSTEMS II.....4-3-3

This course introduces the concepts of linear systems theory as applied to electrical networks, AC steady state analysis, frequency response, two-port models, Fourier series, and Laplace transforms
Prerequisites: EGR 211 Linear Electrical Systems I, MAT 201 Calculus II, PHY152 Principles of Physics II

EGR 291 ENGINEERING RESEARCH I3-2-2

This course provides the student with an introductory research experience focused on a specific topic in engineering. Utilizing the scientific method, students will conduct literature reviews, design and execute experiments, collect and analyze data, and report out on results through technical reports and presentations. Students will learn best practices in experimental design, data collection, and laboratory notebook maintenance.

EGR 292 ENGINEERING RESEARCH II.....3-2-2

This course provides students with an additional research experience

building upon work performed in EGR 291, Engineering Research I. Students may continue projects or initiate new ones. Utilizing the scientific method, students will conduct more advanced literature reviews, and play a leadership role in the design and execution of experiments, data collection/analysis, and reporting of results through technical reports and presentations. Students will continue to hone best practices in experimental design, data collection, and laboratory notebook maintenance.

EGR 299 INDEPENDENT STUDY IN ENGINEERING 3-3-0

ENGINEERING TECHNOLOGY

EGT 110 BASIC ELECTRONICS 4-3-3

This course introduces students to fundamental electronic circuits and devices. Topics covered include Ohm's law, series-parallel circuits, LRC circuits, magnetism and the sine wave. Devices studied include resistors, capacitors, inductors, relays, transformers, semiconductor diodes, transistors, and thyristors. Laboratory experiments supplement classroom theory.
Prerequisite: MAT 011 or equivalent.

EGT 190 PRINCIPLES OF CRITICAL THINKING IN TECHNOLOGY3-3-0

The primary aim of this course is to teach students how to apply standards of critical thinking to everyday problem-solving situations in order to succeed in a rapidly changing world. Critical thinking standards are studied and applied to a variety of everyday situations to develop fact-finding and sound questioning skills in order to more effectively assess and find solutions to problem situations. Developing critical thinking behavior will improve the technology student's ability to troubleshoot" systems. Business students will benefit by doing more efficient cost/benefit analysis and students of other disciplines will find learning how to think more critically a tremendous asset to their lives.
Prerequisites: High School graduate.

EGT 203 APPLIED STATICS4-3-3

This course covers Newton's first law as applied to particles and rigid bodies. Topics include the study of elementary, analytical and practical applications of the principles and physical concepts of statics.
Prerequisites: EGT 190, MAT161 and MAT 162 or equivalent, and PHY 121 or equivalent.

EGT 204 APPLIED DYNAMICS 4-3-3

This course covers topics on kinematics, work-energy equations, and impulse-momentum theory as they apply to rigid bodies, with an emphasis on engineering situations. Students will also be introduced to vibration theory.
Prerequisites: EGT 190, MAT 161 and MAT 162 or equivalent, and PHY 121 or equivalent.

EGT 210 DIGITAL CIRCUITS 4-3-3

This course introduces the student to basic digital circuit design and analysis with an emphasis on applications. The course is taught in a laboratory-oriented environment and incorporates a design-of experiments approach to fabrication and test of a variety of digital circuits. Interactive computer-based instructional systems reinforce the material covered in class.
Prerequisites: EGT 190. PHY 122 or equivalent. MAT 161 or equivalent.

EGT 211 AC/DC CIRCUITS 4-3-3

This course covers advanced principles of passive DC and AC electrical

circuits. The DC network is initially introduced to provide a solid understanding of the relationships of multiple current and voltage supply configurations in multi-loop circuits. The single-phase sinusoidal AC network is then introduced followed by multi-phase AC networks. Basic filtering networks and transformer theory are also covered. Substantial laboratory-based activities are included to reinforce and validate the circuit theory. A basic background in college-level general physics II is required as well as a working knowledge of complex- number mathematics, simultaneous equations, and basic trigonometry to enroll in this course.
Prerequisites: EGT 190, PHY 122 or equivalent, MAT 161 and 162 or equivalent.

EGT 212 APPLIED FLUID MECHANICS 4-3-3

This course covers topics in fundamental fluid mechanics theory including fluid properties, static fluids, kinematics of fluids, and the general energy equation. Applied topics include power requirements of hydraulic and turbo machinery, steady incompressible flow in pressure conduits, and flow measurements.
Prerequisites: EGT 190, MAT 116, MAT 161 and MAT 162 or equivalent, PHY 121 and PHY 122 or equivalent, and EGR 10.

EGT 213 APPLIED STRENGTH OF MATERIALS. 4-3-3

This course is an intensive study of the mechanical properties of materials used in engineering. Topics covered include stress-strain relationships, shear and moment diagrams, design of beams and columns, welded connections, pressure vessels, stress concentrations, and material properties.
Prerequisites: EGT 190, EGT 203, PHY121 or equivalent, MAT116, MAT 161 and MAT 162 or equivalent, EGR 103.

EGT 215 APPLIED THERMODYNAMICS.....4-3-3

This course introduces the student to the fundamental heat transfer equations for conduction, convection, and radiation and heat exchanger design. Topics will also include instruction on fundamental concepts of the first and second laws of thermodynamics and their applications to engineering systems. All lecture material presented in class will be reinforced by in-class laboratories experiences.
Prerequisites:
EGT 190 - Principles of Critical Thinking in Technology
MAT 161 - Precalculus I, and
MAT 162 - Precalculus II

EGT 230 ANALOG CIRCUITS 4-3-3

This course introduces the student to the implementation of commercially available solid- state devices and linear integrated circuits in analog electronic systems. The course is taught in a laboratory-oriented environment and incorporates a design- of-experiments approach to fabrication and test of a variety of communication systems. Interactive computer-based instructional systems reinforce the material covered in class.
Prerequisites:
EGT 190 - Principles of Critical Thinking in Technology
PHY 122 - General Physics II, or equivalent

MAT 161 - Precalculus I, and
MAT 162 - Precalculus II
or
MAT 115 - Applied Algebra/Trigonometry I, and
MAT 116 - Applied Algebra/Trigonometry II, or equivalent

EGT 235 INSTRUMENTATION AND CONTROLS 4-3-3

This course provides the student the opportunity to investigate the selection and use of automated control devices and their associated input and output interfaces to measure operating characteristics in both electrical and mechanical systems. The student will work with programmable logic equipment as well as electromechanical

devices and design actual processes that will then be monitored and feedback-controlled. A design- of-experiments approach to learning is incorporated into the course.
Prerequisites: EGT 190, PHY 121 and PHY 122 or equivalent, MAT 161 and 162 or equivalent, EGR 111 or equivalent.

EGT 240 COMMUNICATION SYSTEMS 4-3-3

This course introduces the student to the principles of analogue and digital data transmission by way of RF, microwave, wire, and fiber- optic technology associated with the transmission and reception of data. Wired and wireless LAN, cellular, satellite, radio, and microwave transmission are discussed and reinforced. This course is taught in a laboratory- oriented environment and incorporates a design-of-experiments approach to fabrication and test of a variety of communication systems. Interactive computer-based instructional systems reinforce the material covered in class.
Prerequisites:
EGT 190 - Principles of Critical Thinking in Technology
EGT 210 - Digital Devices EGT 211 - AC/DC Circuits EGT 230 - Analog Devices
PHY 121 - General Physics I, and
PHY 122 - General Physics II, or equivalent

MAT 161 - Precalculus I, and
MAT 162 - Precalculus II
or
MAT 115 - Applied Algebra/Trigonometry I, and
MAT 116 - Applied Algebra/Trigonometry II, or equivalent
EGR 111 - Engineering Computations, or equivalent

ENGLISH

***ENG 010 BASIC WRITING I0-3-0**

ENG 010 uses sentence and paragraph writing and readings to focus on grammar, sentence structure, and punctuation. The course is required of all students whose scores on the placement test indicate a need for intensive review of basic sentence skills. ENG 010 may also be taken as a refresher course. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse
Prerequisites: Placement test score of 0 or 1.
*Placement into developmental courses restricts college level course choices.

ENG 010A BASIC WRITING0-6-0

ENG 010A uses writing and reading to focus on grammar, sentence structure, paragraph development, fundamental English usage, and intensive paragraph writing. The course is required of all students whose scores on the placement test indicate a need for intensive review of basic writing skills. ENG 010A may also be taken as a refresher course. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisite(s): Placement test score of 0 or 1.

ENG 011 BASIC WRITING II 0-3-0

ENG 011 emphasizes sentence structure, paragraph development, fundamental English usage, and intensive paragraph writing. The course is required of all students whose scores on the placement test indicate a need for intensive review of basic writing skills. ENG 011 may also be taken as a refresher course. This precollege level course cannot

be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: "Placement test score of 2 or 3, or a grade of "C" or better in ENG010.
*Placement into developmental courses restricts college level course choices.

ENG 101 ENGLISH COMPOSITION I 3-3-0

ENG 101 is based on the premise that critical thinking generates clear writing. In this course, the student learns to read critically, a skill that involves distinguishing central ideas from supporting material and identifying an author's purpose, assumptions, attitudes, and biases. Additionally, the student in ENG 101 learns a writing process that involves generating ideas, drafting, composing, revising, and editing. The student also learns to locate, use, and accurately reference various sources of information.

(Core Goals 1a and 5)

Prerequisites: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011 with a grade of "C" or better.

This course has an Honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

ENG 102 ENGLISH COMPOSITION II 3-3-0

ENG 102 focuses on writing the college-level research paper and develops each student's mastery of communication, information literacy, and analytic skills with emphasis placed on research and documentation methods. Students use writing, reading, listening, and observations skills to understand, organize, receive, and convey information. Using research gleaned from diverse sources, students employ logic, reasoning, and analysis to craft effective essays.

(Core Goals 1a, 2 and 5)

Prerequisite: Students must have successfully completed or tested out of ENG 101 with a grade of "C" or better. This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

ENG 115 WRITING FOR TECHNICAL COMMUNICATION 3-3-0

Writing for Technical Communication entails the application of writing skills taught in ENG 101 and research skills. It teaches how to do on-the-job writing. It concentrates on special and practical forms of communication, letters and memos, the summary, the critique, the report, the article, and the technical speech. In addition, the course adapts formal English to the style of the technical or specialized writer.

(Core Goal 1a and 5)

Prerequisites: ENG 101 with a grade of "C" or better (replaces ENG 102, with departmental approval, for two-year career technical students and for students who plan to transfer to a four-year technical institution).

ENG 117 WRITING FOR BUSINESS AND INDUSTRY 3-3-0

Writing for Business and Industry entails the study of the principles of general business communication for people in business and industry or students planning a career in business. The course includes intensive study of the mechanics, form, style, and content of business letters, memos, reports, proposals, and evaluations.

ENG 165 JOURNALISM I .. 3-3-0

ENG 165 introduces students to the art of journalistic writing. In this course, the student learns to present news in an objective and responsible manner, a skill that involves recognizing newsworthy events, organizing information, pitching articles to news editors, writing

articles suitable for publication, and submitting properly formatted copy to news outlets, both traditional print and online. The student also learns to locate, use, and accurately reference various sources of information, both online and through interview and observation.

Prerequisites: ENG 101 with a grade of "C" or better.

ENG 199 INDEPENDENT STUDY IN COMPOSITION 3-0-6

ENG 201 SURVEY OF ENGLISH LITERATURE I..... 3-3-0

A chronological survey of English literature from the beginnings through the Neoclassical period. The emphasis is on major writers, whose works are studied for their literary value and in their historical and philosophical contexts.

(Core Goals 5, 6 and 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 202 SURVEY OF ENGLISH LITERATURE II..... 3-3-0

A chronological survey of English literature from the Romantic Period to the present. The emphasis is on major writers, whose works are studied for their literary value and in their historical and philosophical contexts.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 211 SURVEY OF AMERICAN LITERATURE I 3-3-0

A chronological survey of American literature from the Colonial Period to the Civil War. Significant works of American writers are studied for their literary value and in their historical and philosophical contexts.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

ENG 212 SURVEY OF AMERICAN LITERATURE II..... 3-3-0

A chronological survey of American literature from the Civil War to the present. Significant works of American writers are studied for their literary value and in their historical and philosophical contexts.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent.

ENG 221 LITERATURE OF THE WESTERN WORLD I 3-3-0

This course is a survey of major periods, trends, ideas, and genres in Western literature from the beginning of Western tradition to the Renaissance. Representative writings and authors from the Old Testament to Shakespeare are studied.

(Core Goals 5, 6 and 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 222 LITERATURE OF THE WESTERN WORLD II 3-3-0

A survey of major periods, trends, ideas, and genres in Western literature from the 17th century to the Modern Era. Representative writings and authors from Molière to the present are studied.

(Core Goal 6,7 and 12)

Prerequisites: C or better in ENG 101 or equivalent

ENG 228 LITERATURE IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION 3-3-0

This is a required course for students who are in the Education in the Early Years: Birth through Fourth Grade Program. It includes a comprehensive examination of children's literature including a variety of genres, authors, and illustrators. Students will examine authors' literary

styles and techniques and learn how to include children's literature in every content are of the curriculum. In addition, students will become familiar with literary elements and authors' uses of them to achieve a specific purpose. They will develop skill in the use of storytelling and dramatization. Students will learn how to assess the quality and appropriateness of children's literature for various ages.

Prerequisite: EDU 100

ENG 235 POETRY 3-3-0

The course will include a study of the techniques and styles of poetry as a means of understanding human experience. The course will be a survey of poems selected because of the insights and revelations which they provide. The course will also provide appropriate background information and instruction in types, techniques and styles of poetic composition with special emphasis on the relationship of these matters to the poetic vision of each work.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 236 FICTION. 3-3-0

This course aims to cultivate an appreciation of the commentaries and influences on contemporary civilization by European and American writers of fiction. The short story and/or the novel will be studied in terms of structure, plot, setting, character development, point of view, tone and style which, in concert, will provide a deeper understanding of the author's vision.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent.

ENG 237 DRAMA 3-3-0

The aim of the course will be to introduce the student to the significant playwrights of Western literature, concentrating particularly on those playwrights who have had a major influence on the theatre. A particular play will be approached in terms of the culture of its origin and as a representation of universal human values and conflicts. Specifically, the course will deal with a discussion of plot, character, theme, setting and diction.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 238 THE LITERARY VISION OF FILM 3-3-0

This course focuses on film as a mode of literary expression. After developing a baseline knowledge of the techniques and devices of literature, selected films are viewed and discussed as works of literature. Only films which were created as films - that is, not based on books or works of drama - are considered. This is not a "film" course, and techniques related to film are not studied.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent .

ENG 245 SCIENCE FICTION. 3-3-0

A survey of the works of distinguished science fiction writers from Jules Verne to the present. Novels and short stories by writers such as H.G. Wells, Isaac Asimov, Kurt Vonnegut, Robert Heinlein, Arthur Clarke and Ray Bradbury will be read and discussed. Discussions will be aimed at determining the specific characteristics of the genre and its relationship to fantasy and traditional fiction.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent.

ENG 246 AFRICAN-AMERICAN LITERATURE 3-3-0

This course introduces the student to representative works by African Americans. Autobiographies, novels, poems, plays, and films will be studied, by some of the following: Frederick Douglas, Langston Hughes,

Richard Wright, Ralph Ellison, Zora Neale Hurston, Malcolm X, Leroy Jones, James. Baldwin, Nikki Giovanni, Eldridge Cleaver, Toni Morrison, John Wideman, August Wilson, and Spike Lee.

(Core Goal 6, 7, and 12)

Prerequisites: C or better in ENG 101 or equivalent

ENG 248 NATIVE AMERICAN LITERATURE 3-3-0

Students read a variety of Native American literature, including autobiographies, fiction, poetry, and drama, focusing primarily on writing since 1970. In addition to this focus, students learn background historical and cultural material.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 255 WOMEN IN LITERATURE 3-3-0

This course will analyze the image of women in literary works. The instructor will select one of several possible formats to follow, such as thematic (e.g. women as mothers, wives, mistresses, shrews, temptresses, and heroes). The class will discuss themes, characters, structure, imagery, and point of view, all in relation to women's roles.

(Core Goals 7 and 12)

Prerequisites: C or better in ENG 101 or equivalent

ENG 256 LITERATURE AND FILM 3-3-0

The purpose of this course is to acquaint the student with works of literature and their adaptations into films. Both forms will be discussed and studied as expressions of human experiences. The emphasis of the course will be on the literary work; typically, the film will be viewed and discussed as an adaptation of that work.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 257 CONTEMPORARY LITERATURE 3-3-0

Contemporary Literature is a course designed to familiarize the student with what some of our best writers are doing today; possible emphases include journeys into the mind and the effects of electronic media. Such writers as Kerouac, Ginsberg, Barthelme, Baraka, Pynchon, Barth, Bellow and Oates may be discussed.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 265 CREATIVE WRITING 3-3-0

This course entails the study and practice of the basic techniques of fiction, poetry, and drama. Students study and practice to sharpen literary writing talent with emphasis on originality, style, content and form. Class enrollment limited to 19 students.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 266 ADVANCED CREATIVE WRITING 3-3-0

This course develops further the writing skills learned in ENG 265. Students analyze literary models and critique each other's works with an emphasis on developing critical abilities necessary to refine their own works for publication. Most importantly, it will give them the chance to write for markets and learn the mechanisms through which they may submit their works for publication. They also may pursue special writing projects beyond the scope of the classroom, including chances to participate in internships and feature their own works while presenting coffeehouses or teaching writing workshops.

(Core Goal 7)

Prerequisites: ENG 265 or portfolio approved by instructor.

ENG 275 SHAKESPEARE.....3-3-0

The course is a general introduction to the comedies, histories, and tragedies of Shakespeare. The aim of the course is to enable the student to appreciate Shakespeare's dramatic ability, his skill with language, and his insights into humanity.

(Core Goal 7)

Prerequisites: C or better in ENG 101 or equivalent

ENG 285 SOPHOMORE LITERATURE STUDIES 3-3-0

Specialized sophomore level course typically dealing with a different subject each time the course is offered. Each course will present a body of literary materials which will serve as the basis for assisting the student in strengthening sensitivity to literature and developing the critical abilities needed for understanding, evaluating and appreciating literature. Consult the English Department for a detailed description of the course currently being offered.

Prerequisites: C or better in ENG 101 or equivalent.

ENG 299 INDEPENDENT STUDY IN LITERATURE3-3-0

ENGLISH AS A SECOND LANGUAGE

***ESL 003 ENGLISH AS A SECOND LANGUAGE I. 0-6-0**

This semi-intensive (two hours a day, five days a week for seven weeks) ESL course introduces the student to the alphabet and basic vocabulary of the English language that will help them to talk about themselves, their families, jobs, shopping, and their new community. The course assumes that students are literate in their native language. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: Appropriate placement test score.

*Placement into developmental courses restricts college level course choices.

***ESL 004 ENGLISH AS A SECOND LANGUAGE II 0-6-0**

This semi-intensive (two hours a day, five days a week for seven weeks) ESL course is designed to develop the student's ability to make sense out of the English language as acquired thus far. The understanding of English will be applied to the areas of reading, speaking and spelling. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: ESL 003 with grade of "C" or better or appropriate placement test score.

*Placement into developmental courses restricts college level course choices.

***ESL 005 ENGLISH AS A SECOND LANGUAGE III 0-6-0**

This semi-intensive (two hours a day, five days a week for seven weeks) ESL course introduces the student to basic everyday structure, vocabulary and pronunciation with practice in listening/ speaking and writing. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: ESL 004 with grade of "C" or better or appropriate placement test score.

*Placement into developmental courses restricts college level course choices.

***ESL 006 ENGLISH AS A SECOND LANGUAGE IV 0-6-0**

This semi-intensive (two hours a day, five days a week for seven weeks) ESL course is designed to develop the student's oral communication so that the native speakers would have little difficulty in understanding the student and to develop in the student the ability to write a well-constructed paragraph. This course is for students who have completed ESL 005 or have an appropriate score on the placement test. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: ESL 005 with grade of "C" or better or appropriate placement test score.

*Placement into developmental courses restricts college level course choices.

ESL 009 ORAL/AURAL SKILLS 0-3-0

A course designed for developing listening comprehension and pronunciation skills for ESL students with low intermediate English proficiency. By using tapes of lessons and natural speech, the student should attain accuracy at the sound, word and sentence level. Conversation practice will be based on topical discussions, readings and student debates. This course is a prerequisite for ESL students who plan to take SPC 110. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

***ESL 010 BASIC WRITING I 0-3-0**

ESL 010 is a low intermediate course that integrates computerized interactive tutorials to develop writing skills and teach communication through writing. This course reviews simple and advanced verb forms, adjectives and adverbs. Emphasis is on sentence structures: word order, word choice, sentence combining and punctuation. Students will build upon their sentence skills to develop a unified paragraph of at least seventy- five words in length utilizing topic sentences. This is a required course for students who have successfully completed ESL 006. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: ESL 006 with grade of "C" or better or appropriate placement test score.

*Placement into developmental courses restricts college level course choices.

***ESL 011 BASIC WRITING II 0-3-0**

This course covers advanced grammar structures and paragraph development. Emphasis is placed on writing in a coherent and well organized manner through the development of main ideas/ topic sentences, supporting information and conclusion. This course is for students who have successfully completed ESL 010 or have an appropriate score on the placement test. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: ESL 010 with grade of "C" or better or appropriate placement test score.

*Placement into developmental courses restricts college level course choices.

ESL 014 VOCABULARY AND READING COMP. DEVELOP. I..... 0-3-0

This course is designed to increase the non-native English speaking student's general English vocabulary, so that he/she will be better able to comprehend written materials at the post-secondary level. Students will use texts of narrative non-fiction to build their knowledge of the American English language. Expanding vocabulary through a study of idioms, roots, and affixes is also included. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse. (Also offered as REA 014).

Prerequisites: Students must have successfully completed or tested out of: ESL 006 - English as a Second Language II Or by permission of the instructor

ESL 017 VOCABULARY DEVELOPMENT II 0-3-0

Vocabulary Development 11 is designed to prepare the more advanced non-native English speaking student to become ready to succeed in a college curriculum. The materials are at an intermediate to advanced level. The student will read cross-cultural stories, passages, essays, and explore readings from American authors, learn about American culture through the readings and respond to them orally and in writing. The student will also be responsible for learning extensive new vocabulary from their text. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse. (Also offered as REA 017)

Prerequisites: Students must have successfully completed or tested out of: REA 014 - Vocabulary and Reading Comprehension Development I

ENTREPRENEURSHIP

ETP 110 ENTREPRENEURIAL ESSENTIALS 3-3-0

This course will enable students to evaluate the entrepreneurial venture for themselves, as well as assist them in launching their new business. Students will examine fundamental elements of the entrepreneurial process including personal, sociological, and environmental considerations. The course will provide students with a framework for selecting, funding, and starting their new venture. In addition, critical factors for starting a new enterprise will be explored.

(Core Goals 2 and 13)

Prerequisites: Students must have successfully completed or tested out of developmental courses.

ETP 111 ENTREPRENEURIAL MARKETING.....3-3-0

This course will allow the student to gain insights essential for marketing an entrepreneurial venture utilizing innovative and financially responsible marketing strategies. Additionally, the student will prepare a marketing plan to launch the entrepreneurial venture, with an implementation strategy for the first two years of operation.

Prerequisites: Students must have successfully completed or tested out of developmental courses.

ETP 112 ENTREPRENEURIAL ACCOUNTING 3-3-0

This course will provide the student with an overview of business financial management. Emphasis is placed on financial statement analysis, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret

and apply the principles of financial management to their own entrepreneurial venture.

Prerequisites: Students must have successfully completed or tested out of developmental courses.

ETP 113 ENTREPRENEURIAL BUSINESS PLAN 3-3-0

This course will enable the student to prepare a professional, comprehensive business plan that will guide their business start-up and address capital funding. Topics to be covered include: the parts of a business plan, the planning process, and writing techniques that will get the plan noticed.

Prerequisites: Students must have successfully completed or tested out of developmental courses.

EXERCISE SCIENCE AND WELLNESS

ESW 100 FOUNDATIONS OF PHYSICAL EDUCATION 2-1-2

This course is designed to acquaint the student with concept of physical education as the study of human movement, motor development, and socialization of sport. Emphasis is placed on the ways body movement enhances growth, development, and wellness of the mind and body. Practical applications and activities will be included.

(Core Goal 10)

ESW 101 INTRODUCTION TO DANCE STUDIES 3-1-2

This course provides an introduction to the study of dance at the college level. The course is designed for dance majors or anyone with a serious interest in pursuing dance studies. The course focuses on the development and care of the dancer's instrument. Students will learn and practice the fundamental principles of correct dance technique common to Western dance forms. The course addresses practical concerns of dance training including: injury prevention, cardio/respiratory fitness and endurance, strength training, stretching for flexibility, diet and nutrition, and caring for the dancing body. (Also offered as DAN 101)

(Core Goal 10)

ESW 102 INTRODUCTION TO EXERCISE SCIENCE, WELLNESS AND SPORT STUDIES3-3-0

This ESW majors course is designed to provide foundational knowledge in exercise science, wellness, and sport studies through a broad range of classroom presentations and service learning experiences as well as integration of technology. Students will explore the various professional opportunities in the field and will develop an educational and professional plan to support their career aspirations.

(Core Goals 5 and 10)

ESW 106 AEROBICS 2-1-2

This course is designed to provide an overview of the theory of aerobic exercise and a selection of aerobic activities and exercises that will develop the student to a higher level of physical fitness with a working knowledge of the principles of exercise. Discussions will deal with such topics as cardiovascular endurance, muscular strength, neuromuscular coordination, flexibility, warm-up, workout progression, cool down, and body nutrition for performance.

(Core Goal 10)

ESW 107 ZUMBA FITNESS.....2-1-2

This course is designed to provide an overview of the theory, history, and practices of Zumba Fitness and support the student's development of a higher level of physical fitness through a working knowledge of

the principles of exercise. Discussions will address such topics as cardiovascular endurance, muscular strength, neuromuscular coordination, flexibility, warm-up, workout progression, cool down, and body nutrition for performance.

(Core Goal 10)

Prerequisites: Students must have successfully completed or tested out of: ENG 011 or ESL 011, ENG 010 or ESL 010, REA 011 or REA 017, REA 010 or REA 014

ESW 113 BADMINTON.....2-1-2

This course is designed to develop and improve students' competence in the skills of badminton. Instruction and practice will emphasize refining the mechanics of the strokes within the basic and advanced shots of play. Students will be given the opportunity to learn and apply the game strategy to singles and doubles. The course will also focus on the health benefits of playing badminton across a lifespan. This course meets General Education Core Goal 10: Exercise & Health Science

ESW 117 CREATIVE DANCE I 2-1-2

This is an introductory course which allows the student to develop an innate capacity for expressive movements. The course explores modern dance fundamentals and Labanation vocabulary for individual and group work in interpretive movement.

ESW 123 GOLF 2-1-2

This course is designed to introduce the student to the fundamentals of golf, including grip, stance, swing, rules, and etiquette. Emphasis is given to swing mechanics of the irons, woods, and putting, with some play on local golf courses. (Core Goal 10)

ESW 128 WALK, JOG, RUN FOR FITNESS2-1-2

This course is designed to enable the student to develop and implement a progressive individualized walk, jog, run program. The course will provide a thorough overview of a walk, jog, run program including techniques, training methods, physiological and psychological effects, nutrition, and treatment of injury. Students will utilize technological resources to evaluate current trends and issues and analyze the importance of walking, jogging and running as a lifetime activity. (Core Goal 10)

ESW 137 INTRODUCTION TO TENNIS 2-1-2

The introductory level of tennis course includes learning the basic tennis techniques such as the serve, volley, forehand, and backhand, and the basic strategies such as high and deep hitting, consistent and accurate play, short and long angle hitting, and utilization of the four quadrants of the court. (Core Goal 10)

ESW 141 VOLLEYBALL 2-1-2

This course acquaints students with the skills and fundamentals of team play, the rules and etiquette of the game, and the principles of basic strategy and tournament play. (Core Goal 10)

ESW 146 CONDITIONING, WEIGHT TRAINING, AND WEIGHT CONTROL.....2-1-2

This course is designed to introduce the student to all areas of fitness training including progressive resistance (weight training), cardiovascular training, flexibility, and weight management. The student develops skills in planning and implementing personal fitness programs designed to meet student-own personal needs. Basic understanding of the physiological and psychological principles of human fitness is emphasized. Course designed for both women and men. (Core Goal 10)

ESW 147 MAT PILATES 2-1-2

An introductory course that addresses the basic concepts of body conditioning designed by Joseph H. Pilates. The Pilates philosophy integrates fundamental concepts of body conditioning into a unique system of stretching and strengthening exercises. The course focuses on abdominal strength (core muscles), spinal alignment, flexibility, proper breathing, and the elongating of muscle groups. This course is ideal for beginners and is adaptable to individual needs through a natural progression of Level I, II, and III Pilates mat work exercises. (Core Goal 10)

Prerequisites: Students must have successfully completed or tested out of ESL 009, ESL 011, ENG 011, REA 017, and REA 011.

ESW 148 HATHA YOGA 2-1-2

Introduction to Hatha Yoga postures, breathing exercises, mental discipline, terminology, precepts and practices. The influence of Yoga on Western culture and guidelines for advanced study will also be discussed. (Core Goal 10)

ESW 160 MARTIAL ARTS AND SELF-DEFENSE 2-1-2

This course is designed to acquaint the student with the basic principles of the martial arts and the techniques of self-defense. Emphasis is placed on learning the basic forms and positions of Karate, Judo, and Self-Defense. (Core Goal 10)

ESW 185 ISSUES IN WOMEN'S HEALTH 3-3-0

This survey course will introduce students to the unique needs of women in issues related to health and wellness. The relationship of historical, political, biological, socio-cultural and psychological factors that influence women's health and wellness will also be examined. Topics such as reproductive and sexual health, cardiovascular disease, obesity, diabetes, cancer, stress and abuse will be explored from a holistic perspective. Students will complete an individualized plan to improve their personal health and wellness as the final activity for this course. (Also offered as HCP 185). (Core Goals 10 and 12)

ESW 199 INDEPENDENT STUDY IN EXERCISE SCIENCE AND WELLNESS 1-0-0

ESW 206 BASIC NUTRITION 3-3-0

This course will introduce students to the study of nutrition. It will incorporate fundamental scientific principles enabling students to develop their own nutritional lifestyle compatible with these principles. The course will provide an understanding of nutrients, their function in the body, deficiency diseases, body composition, nutrition and physical activity, nutrition through the life span, food faddism, consumer issues, and an evaluation of diets. The course will encourage the intelligent application of information to enable the students to succeed in implementing good nutrition in their own lives. (Core Goals 2, 5, 10 and 12)

ESW 207 FOOD & CULTURE 3-3-0

This survey course will introduce students to the study of Food & Culture, unraveling, in a regional approach, how historically and geographically meeting our human nutritional needs has been intertwined with the evolution of our modern eating habits. Beginning with the traditional beliefs and practices of the earliest global villages and continuing into today's American 'Melting Pot' of great culinary diversity, this course takes a multicultural and multiethnic approach to food and regional geography. (Also offered as GEO 207) (Core Goals 5, 9, 10 and 12)

ESW 208 INTEGRATIVE NUTRITION .. 3-3-0

The course investigates the interrelatedness of health; the environment; and food nutrients, components and additives which are essential to health and wellness. In depth study of the application and use, safety and efficacy of herbal, vitamin, mineral and biological supplements, taken in complement with food to promote health will be covered. Current emerging trends in holistic nutrition including, but not limited to; organic foods, slow foods, food synergy and eating plans such as Ayurvedic approaches to nutrition, macrobiotics, fasting and raw food diets will be evaluated by students for integration into a holistic self-care plan and application into a personal nutrition- related approach to health. Completion of ESW 206 – Basic Nutrition is recommended but not required.

Prerequisites: Students must have successfully completed or tested out of ENG 011, ESL 009, ESL 011, REA 017, and REA 011.

ESW 210 HOLISTIC HEALTH: COMPLEMENTARY AND ALTERNATIVE HEALTH PRACTICES.. 3-3-0

This course will explore the use of complementary and alternative health practices within a holistic framework of care. A spirit of inquiry will be encouraged through sharing of knowledge, demonstration and exploration of selected health practices such as herbal remedies, homeopathy, healing touch therapies, chiropractic and Eastern therapies. Use of complementary and alternative health practices will be evaluated in the context of managing health conditions such as pain, weight, addictions, and gender specific issues. This course will examine use of complementary and alternative health practices in terms of safety, effectiveness and integration into one's own lifestyle and working with others. (Also offered as NUR 210.)

(Core Goal 10)

ESW 214 MIND-BODY CONNECTIONS 3-3-0

This course provides insights into and an understanding of mind-body connections as they influence one's health. Content will address the powerful ways in which emotional, mental, social, behavior, spiritual and physical health impact on each other. Principles of the emerging field of psychoneuroimmunology will be examined. The impact of stress on health and eliciting of the relaxation response will be explored. Cognitive structuring and dynamics of behavior change will be examined. Students will begin to develop healthy strategies for self-care through use of such modalities as biofeedback, mediation, breathing, journaling, guided imagery, aromatherapy, music and art therapies and humor within a holistic framework. (Also offered as NUR 214)

Completion of ESW/NUR 210 - Holistic Health: Complementary and Alternative Health Practices and/or ESW 208 - Integrative Nutrition is recommended but not required.

Prerequisites: Students must have successfully completed or tested out of ENG 101, ESL 009, ESL 011, REA 017, REA 011.

ESW 215 PREVENTION AND CARE OF ATHLETIC INJURIES ...3-2-1

This course is designed to address the prevention and management of injuries in athletic activities. Course content includes discussion of relevant sports medicine issues, physical conditioning and training, nutritional and psychological concerns, ergogenic aids, and injury recognition. Practice is provided in the use of wrapping, taping, and therapeutic rehabilitation programs.

Prerequisite(s): BIO 129 - Functional Human Anatomy and Physiology (with a grade of "C" or better) Or BIO 131 and 132: Human Anatomy and Physiology I and II (with a grade of "C" or better)

ESW 220 DIRECTING FITNESS AND RECREATIONAL PROGRAMS FOR ACTIVE AND AGING ADULTS..... 3-3-0

Designed for students in health sciences, physical education and human services, and for Gerontological service/care workers; to include YMCA employees, nursing home administrators, nurses, recreational therapists, occupational therapists, community recreation leaders, and health care advocate. Content covered will include an introduction into the field of gerokinesiology, basic theories of exercise, aging and recreation, the design of individual and group recreational and fitness programs and the social, psychological, and physical issues of an aging population.

(Core Goals 2, 5 and 10)

ESW 222 APPLIED KINESIOLOGY3-3-0

This course is designed to introduce the student to the basic fundamentals of human movement, structural characteristics, articulations, and muscular actions around the major joints. The student will apply the basic anatomical and physical principles of human motion, the principles of biomechanics and the theory of neuromuscular action used in motor skills for occupational, daily living activities, and fitness across the lifespan. Upon completion of the course, the student will be able to fully analyze joint actions and muscles involved in multi-joint exercises or sport movements. In addition, the student will be able to identify and recommend exercises to enhance performance based on appropriate muscular analysis.

Prerequisite(s): BIO 129 - Functional Human Anatomy and Physiology Or BIO 131 and 132: Human Anatomy and Physiology I and II

ESW 224 EXERCISE PHYSIOLOGY.....3-3-0

This ESW majors course examines the physiological response and adaptations to acute and chronic bouts of exercise, training regimens, and environmental conditions. Through experiential learning, research, and technology, the student will analyze physiological responses to exercise. Training principles, nutritional considerations, and optimal human performance across the lifespan will be identified and analyzed based on these responses.

(Core Goals 5 and 10)

Prerequisite(s): BIO 129 - Functional Human Anatomy and Physiology (with a grade of "C" or better). Or BIO 131 and 132: Human Anatomy and Physiology I and II (with a grade of "C" or better)

ESW 226 ASSESSMENT OF HUMAN FITNESS3-3-0

This course is designed to introduce the student to the use of health and fitness assessment technology and testing mechanisms needed to assess the physical fitness status of individuals in healthy and selected special populations. Students will perform assessments for the five (5) components of health related physical fitness: Cardiorespiratory endurance; Muscular strength and endurance; Flexibility; and Body composition. The data gathered from the fitness assessments will be used to develop appropriate fitness goals and exercise programs.

Prerequisite(s): BIO 129 - Functional Human Anatomy and Physiology Or BIO 131 and 132: Human Anatomy and Physiology I and II

ESW 227 EXERCISE PROGRAMMING FOR HEALTHY AND SPECIAL POPULATIONS3-3-0

This course focuses on providing the student with the knowledge and experience needed to design exercise programs for individuals who meet the ACSM guidelines for healthy adult and special populations. Emphasis will be placed on practical approaches to fitness program design and appropriate adaptations and individualized modifications for each participant. Upon completion of the course, the student will be able to work in a broad range of physical activity settings by applying

principles of exercise programming to meet the specific needs of each individual, working in one-on-one and small group settings.
Prerequisite(s): ESW 226

ESW 228 TRENDS IN EXERCISE SCIENCE AND WELLNESS 2-2-0

This capstone course in the Exercise Science and Wellness A.S. degree program will focus on trends in Exercise Science and Wellness. Students will explore the latest trends, legal, ethical issues as they relate to various fields. Through the semester, students will develop a professional plan to aid in transferring to a 4-year institution as well as continuing in their professional goals. Included in this course is a service learning component which will enable students to gain valuable life skills.

Prerequisites: Students must have successfully completed or tested out of the previous three semesters in the ESW AS program of study.

ESW 236 PERSONAL HEALTH AND WELLNESS3-3-0

This course assists the student in assimilating strategies to assess current lifestyle behaviors that promote personal, community and global health behavior changes across the lifespan. The student explores each of the Six Dimensions of Wellness, including physical, social, emotional, environmental, intellectual, and spiritual elements involved in achieving a healthy lifestyle.

(Core Goal 2 and Core Goal 10)

ESW 240 PRINCIPLES OF COACHING 3-3-0

This course is designed for coaches involved with community youth sports programs as well as with school and college athletic teams. The course is based on standards set by the National Association for Sport and Physical Education (NASPE). Emphasis is placed on the development of a coaching philosophy, relationships with players, staff, administrators, and parents, as well as the management and organization of a successful team/program. The course covers theories and techniques of teaching sports, evaluation techniques, and research related to competitive performance.

(Core Goals 5 and 10)

ESW 245 SAFETY AND FIRST AID 3-3-0

This course is designed to develop and provide the citizen responder with the knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical care arrives. American Heart Association certifications in Heartsaver First Aid: Adult/Child and Infant Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) are available upon meeting certification requirements.

(Core Goals 2, 5 and 10)

Prerequisites: Students must have successfully completed or tested out of ENG 011, ESL 009, ESL 011, REA 017, REA 011.

ESW 246 CARDIO PULMONARY RESUSCITATION FOR THE HEALTH CARE PROFESSIONAL 1-1-0

The Cardio Pulmonary Resuscitation (CPR) for the Health Care Professional course is designed to teach the skills of CPR for victims of all ages including ventilation with a barrier device, a bag-mask device, and oxygen; use of an automated external defibrillator; (AED) and relief of foreign-body airway obstruction (FBAO). It is intended for individuals who provide healthcare to clients in a wide variety of venues. These healthcare providers include but are not limited to various health career students, nurses, emergency medical technicians, respiratory therapists, medical assistants, public safety officials and other health care personnel. (Also offered as HCP 246.)

ESW 255 HUMAN SEXUALITY 3-3-0

A survey of the major topics of human sexuality with emphasis placed on: sexual development, functioning, behavior, gender identification, reproduction, interpersonal relationships, health, historical and cultural sex studies, and sex education. (Also offered as PSY 255.)
(Core Goals 9, 10, 12 and 13)

ESW 296 PRACTICUM FOR THE HEALTH AND FITNESS PROFESSIONAL 3-1-4

Integrating a seminar and practicum experience in this course serves as the capstone course for the Health and Fitness Professional AAS program. Emphasis will be placed on professionalism, employment strategies, career options, and current issues in the health and fitness field. The field practicum is held in an educational fitness setting where the student works under the direct supervision of a cooperating supervisor. A faculty member arranges the placement and supervises the student on site visitations. At the completion of the course the student prepares a professional portfolio and is eligible to apply for certification exams.

Prerequisites: Completion of semesters 1, 2 and 3 of the Health and Fitness Professional curriculum.

Corequisite: ESW 215

ESW 299 INDEPENDENT STUDY IN EXERCISE SCIENCE AND WELLNESS2-0-0

FIRE SCIENCE

FSC 100 INTRODUCTION TO FIRE SCIENCE..... 3-3-0

This course will provide an introduction to the history and philosophy of fire protection; a review of fire losses; a discussion of the relationship between fire prevention, fire protection and fire control and extinguishment; a career orientation; current legislative developments; and a review of current and future fire protection problems.

FSC 101 EMERGENCY SCENE MANAGEMENT 3-3-0

This course will be concerned with the principles and applications of fire size-up, confinement and extinguishment; salvage and overhaul; pre-planning for fires and other natural disasters; conflagration problems; mutual aid; cooperation with other local departments; use of manpower and equipment; communications problems, command and control.
Prerequisite: FSC 100.

FSC 102 HAZARDOUS MATERIALS 3-3-0

This course is about hazardous material (hazmat) incident response. It is designed to provide both public and private sector emergency response personnel with a logical system for managing hazardous materials incidents. This course will also present a study of the proper storage, transportation and handling of flammable liquids and gasses, combustible solids, oxidizing and corrosive materials; dusts, metals and plastics; radioactive and poisonous substances; cryogenics and rocket fuels; electrical hazards; and will place emphasis on emergency situations and firefighting and control.
Prerequisite: FSC 100.

FSC 103 FIRE DEPARTMENT ORGANIZATION AND ADMINISTRATION 3-3-0

This course will acquaint the student with the basic principles and concepts of organizational structure; the construction of new fire facilities; the distribution of equipment and personnel; personnel management; communications;

community and public relations; training; budgeting; the use of systems analysis and operations research; and reports and their uses.
Prerequisite: FSC 100.

FSC 104 BUILDING CONSTRUCTION FOR FIRE SCIENCE 3-3-0

The topics covered include: the functional and structural aspects of construction, constructional features, fire resistive and fire retardant materials, and ways in which occupancy affects construction requirements.
Prerequisite: FSC 100.

FSC 105 FIRE PREVENTION AND CODE ENFORCEMENT 3-3-0

The topics covered include: federal, state, and local building codes and ordinances; national fire protection standards; National Electrical Code; Life Safety Codes; how codes affect construction and fire fighting; and the role of local fire departments and state officials.
Prerequisite: FSC 100.

FSC 106 FIRE INVESTIGATION 3-3-0

The topics covered include: causes of fires, arson laws, investigative techniques, recognition and preservation of evidence, interrogation of witnesses, reports, court procedure, testimony, and legal opinions.
Prerequisite: FSC 100.

FSC 108 FIRE PROTECTION SYSTEMS 3-3-0

This course will focus on the study of automatic and manual, electronic, and mechanical system based fire protection. Students will examine the different types of active fire protection and components, their operational characteristics, when and where code installation requirements apply, and the inspection and maintenance requirements of these systems.
Prerequisite: FSC 100.

FSC 110 SPECIAL STUDIES IN FIRE SCIENCE..... 3-3-0

Topics or areas of professional interest within the fire science field will be explored. These offerings will vary from semester to semester, depending upon the needs of the student and the community, along with the future development of the program.
Prerequisites: FSC 100

FSC 265 PUBLIC SAFETY TECHNOLOGY 3-3-0

This course will focus on current themes in public safety technology, to include such topics as: Computerized Dispatch, basic ideas of mobile radio technology, mobile data/mobile computer capabilities and functionality, public safety applications for Global Positioning technology, as well as emerging trends that will appear in the Public Safety arena in the next 3 to 5 years. An overview of standards governing communications systems, dispatchers, and other areas of public safety technology will also be covered. Topics will be covered at a non-technical level to provide the student with an overview and understanding of the technology rather than an in-depth examination of just a few specific items. Lectures will include live demonstrations of devices to reinforce key concepts and promote greater understanding. Students will prepare a summary paper in small groups on an emerging idea in public safety technology, based upon original research. (Also offered as CJS 265 & EMP 265.)
Prerequisite: FSC 100, EMP 100, or CJS 100, or permission of the instructor or director.

FSC 299 INDEPENDENT STUDY IN FIRE SCIENCE AND PUBLIC SAFETY .. 3-3-0

FRENCH

FRE 101 ELEMENTARY FRENCH I 3-3-0

Elementary French I is an introduction to the French language. Students will learn to master basic communicative situations in French at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in French. In addition, students will learn about the culture in French speaking countries.
Prerequisites: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011(Core Goal 12)

FRE 102 ELEMENTARY FRENCH II 3-3-0

Elementary French II is the continuation of Elementary French I. Students will master basic communicative situations in French at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in French. In addition, students will identify the linguistic and cultural diversity of French speaking countries. (Core Goal 12)
Prerequisite: FRE 101 or equivalent.

FRE 190 INTRODUCTORY FRENCH FOR BUSINESS..... 3-3-0

A continuation of FRE 101, focusing on the French language in the context of business without foregoing the necessary skills for daily life. The systematic presentation and analysis of each topic of the world of business will develop all four basic language skills: speaking, listening, writing, and reading. In addition, presentations of the latest trends in French business practice and culture, supported by selected sites on the internet, will help students to become up-to-date with French business practices in North America. The extensive use of audiovisual material will be continued. Active participation of the students is highly recommended.
Prerequisite: FRE 101 or equivalent

FRE 199 INDEPENDENT STUDY IN FRENCH..... 3-3-0

FRE 201 INTERMEDIATE FRENCH I. 3-3-0

Continuation of the language structures. Dialogues and skits give the student practice in conversation and composition. Exploration of the culture of the French-speaking world will be continued.
Prerequisite: FRE 102.and/or FRE 190 or equivalent (2 years of high school French)

FRE 202 INTERMEDIATE FRENCH II.. 3-3-0

A continuation of FRE 201, with readings of selected writers, and discussions and compositions in French related to the readings.
Prerequisite: FRE 201 or approval of instructor

FRE 251 ADVANCED FRENCH I.. 3-3-0

Advanced French I is a course designed to improve proficiency in written and oral French. Students will study the contemporary culture of France and the French-speaking countries via authentic materials selected from authentic media as well as from cultural readings. French literature is approached through the study of representative excerpts from the works of major French authors. This class is taught in French. Outside reading is required.
Prerequisite: FRE 202 oru Approval of instructor.

FRE 252 ADVANCED FRENCH II 3-3-0

Advanced French II is a continuation of Advanced French I. It is a course designed to improve proficiency in written and oral French. Students will continue to study the contemporary culture of France and the French-

speaking countries via authentic materials selected from authentic media as well as from cultural readings. French literature is approached through the study of representative excerpts from the works of major French authors. This class is taught in French. Outside reading is required.

Prerequisite: FRE 251 or approval from instructor

FRE 299 IND STUDY IN FRENCH... 3-3-0

GEOGRAPHY

GEO 110 WORLD REGIONAL GEOGRAPHY 3-3-0

This introduction to the social science of geography is a regional approach that surveys the diverse cultural and physical patterns of the world. This course is designed to cover a wide range of topics related to the regions of the world including: physical, environmental, population, ethnic, language, religious, agricultural, economic, political, and urban characteristics. Spatial skills and tools such as maps, location, scale, and various models (demographic, economic development, and urbanization) will be employed to better understand the diversity of regional geography.

(Core Goals 2, 5, 9 and 12)

GEO 130 CULTURAL GEOGRAPHY 3-3-0

This introductory course in the social science of human geography surveys the spatial aspects of: human-environment interaction, religion, language, agriculture, industrial & economic development, urbanization, globalization and population trends, as well as other adjustments made to the cultural landscape.

(Core Goals 2, 5, 9, 11 and 12)

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

GEO 135 PHYSICAL GEOGRAPHY 3-3-0

This introduction to the science of physical geography describes the patterns of natural features on the earth. Topics will include location, landforms, hydrology, weather, climates, biological regions and human-environment interactions.

(Core Goals 2 and 11)

Prerequisites: Students must have successfully completed MAT 011 with a minimum grade of "C" or achieved a Math placement test recommendation of "UND 116" or "ABV 100".

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

GEO 137 URBAN GEOGRAPHY ... 3-3-0

This introduction to urban geography surveys the patterns of urbanization. The course includes a brief history of cities, models of morphology and location, transportation systems, economics, and social patterns associated with urban areas. A focus on urban areas in the United States (with an emphasis on Philadelphia) is used to explore and explain the urban patterns found in places around the world.

GEO 207 FOOD AND CULTURE .. 3-3-0

This survey course will introduce students to the study of Food & Culture, unraveling, in a regional approach, how historically and geographically meeting our human nutritional needs has been intertwined with the evolution of our modern eating habits. Beginning with the traditional beliefs and practices of the earliest global villages and continuing into today's American "Melting Pot"

of great culinary diversity, this course takes a multicultural and multiethnic approach to food and regional geography. (Also offered as ESW 207)

(Core Goals 5, 9, 10 and 12)

GEO 210 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 3-3-0

This introduction to Geographic Information Systems is structured to develop knowledge of various geographic location systems and skill in basic geographic analysis with ArcView software. The course emphasizes the techniques of spatial problem solving. The weight of the course is on practical analysis skills including data compilation, projection, analysis and reporting.

(Core Goals 2 and 4)

Prerequisites: Students must have successfully completed or tested out of MAT 011, REA 011, CIS 100 or permission of instructor

GEO 220 MAP DESIGN IN GEOGRAPHIC INFORMATION SYSTEMS (GIS) 3-3-0

This course is an introduction to the art and science of cartography and geographic information systems and is structured to develop skills in design and use of analytical and computer-mapping systems. This course transfers to West Chester University and the Pennsylvania State University (Main Campus) as a Geography Elective.

(Core Goals 2, 4, 5 and 7)

Prerequisites: Students must have successfully completed or tested out of MAT 011, REA 011, CIS 100 or permission of instructor.

GEO 230 GEOGRAPHIC INFORMATION SYSTEMS (GIS) APPLICATIONS.... 3-3-0

This workshop teaches advanced geographic analysis with Geographic Information Systems. Students will learn each of the advanced data import skills, standard symbol systems, specialized geographic analysis and pseudo-3d displays specific to their discipline, and be exposed to problems in other disciplines. Specific tracks are available for emergency management / criminal justice, business & marketing, social sciences & human services, and environmental science.

Prerequisite: GEO 210 or GEO 220

GEO 235 SUSTAINABLE CLIMATE COMMUNITIES 3-3-0

This course enables students to participate in building more sustainable communities in the face of changing climates. Students will analyze the science of climate change and research the forces creating the diversity of opinions, competing ethical systems and economic interests around this topic. This course includes service learning, climate modeling and secondary social science research.

(Core Goals 2, 5, 9, 11, 12 and 13)

Prerequisite: Students must have successfully completed or tested out of REA 011 and must have successfully completed or tested out of ESL 011 or ENG 011.

GEO 238 INTRODUCTION TO URBAN AND REGIONAL PLANNING 3-3-0

This course surveys the principles, methods and practices of contemporary urban and regional planning. This course will cover a range of topics including: principles and theories of urban morphology, urban structure and institutions, concepts of planning as a community process and a professional activity, planning as both a public and private responsibility, and the evolution of planning ideas in response to changing social, economic, and environmental conditions within the context of the United States political framework.

Prerequisite: GEO 137

GEO 299 INDEPENDENT STUDY.....3-3-0

GEOLOGY

GLG 115 ENVIRONMENTAL GEOLOGY 4-3-3

Environmental Geology is an examination of geologic processes which have impact upon humans and of the impact humans have upon those processes. Topics such as coastal erosion, flooding, earthquakes, radon, greenhouse effect, water quality, and waste disposal will be investigated. Environmental Geology should be considered by the following students: those needing a lab-science elective, those preparing for a career as an environmental technician, and those considering a Geology major seeking a geology elective. Class time field trips and Saturday field trips will be taken.

Pre-requisite: MAT 011
(Core Goals 2 and 8)

GLG 120 EARTH SCIENCE 4-3-3

Earth Science is a general survey course which includes the disciplines of Astronomy, Geology, Meteorology, and Oceanography. Specific topics to be examined include stellar evolution, planetary geology, cosmological theory, erosional and depositional processes, volcanoes, earthquakes, plate tectonics, weather patterns and forecasting. This course is recommended to fulfill a laboratory science requirement for non-science majors who do not have a strong science background.

(Core Goals 2 and 8)

GLG 121 INTRODUCTION TO ASTRONOMY 4-3-3

Introduction to Astronomy is a one-semester college-level course in basic astronomy. The course may be used as a laboratory science elective with basic algebraic applications. The course explores a broad range of astronomical concepts and principles in ten major areas: understanding the sky, apparent motions of the planets and the sun, telescopes and accompanying technology, basic structure and behavior of atoms, origin and analysis of light, origin of the solar system, internal structure and behavior of the sun, lifecycle of all stellar classes, origin and structure of galaxies and cosmology. Throughout the course, emphasis is placed on the implementation of the scientific method, the evidence that astronomers use to support their conclusions, and the importance of astronomy. (Night-time observing is required).

(Also offered as AST 120 and PHY 120.)

(Core Goals 2, 5 and 8)

Prerequisites: A minimum grade of "C" or better within 5 years in both MAT 011 and ESL 011 or ENG 011.

GLG 125 THE SCIENCE OF CLIMATE CHANGE 4-3-3

The Science of Climate Change is an introductory survey of the causes and consequences of climate change at a variety of time and spatial scales throughout Earth's history. Natural and human-induced climate change will be studied as physical processes with varying dimensions of biophysical and societal impacts. This course should be considered by the following students: those needing to fulfill a lab science Core requirement, those preparing for a career in environmental science, and those considering a Geology or Atmospheric Sciences major seeking a geoscience elective.

Prerequisite: Students must have successfully completed or tested out of MAT 011, ESL 011 or ENG 011, and REA 011.

(Core Goals 2 and 8)

GLG 151 PHYSICAL GEOLOGY 4-3-3

Physical Geology is a survey of the physical character of the earth. Topics of surficial geology to be examined include weathering and mechanisms of erosion - mass movement, streams, wind, glaciers, and waves. The internal character of the earth will be explored by studying

heat flow, seismology, volcanism and plutonism, metamorphism, crustal deformation and plate tectonics. Though this course and GLG 152 are designed to accommodate requirements of a prospective geology major, GLG 151 and GLG 152 should be considered by the student who needs two successive semesters of the same science for transfer purposes.

Prerequisite: MAT 011 (Core Goals 2 and 8)

GERMAN

GER 101 ELEMENTARY GERMAN I 3-3-0

Elementary German I will focus on mastering the basic communicative situations in German. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in German. In addition, students will learn about the culture in German speaking countries. Active participation of the student is essential for success in this class.

(Core Goal 12)

Prerequisite: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011

GER 102 ELEMENTARY GERMAN II 3-3-0

Elementary German II is the continuation of Elementary German I. Students will master basic communicative situations in German at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in German. In addition, students will identify the linguistic and cultural diversity of German speaking countries.

Prerequisite: GER 101 or approval of instructor.

(Core Goal 12)

GER 111 THE WORLD OF GERMANY I 3-3-0

Taught entirely in English and open to all students, this course offers a modern-day perspective of Germany and the social and cultural forces which shaped Germany's image. The student will become acquainted with a land of contrasts which has emerged from chaos to become Europe's most dynamic force. A number of authentic documents will supplement lectures and class discussions.

GER 199 INDEPENDENT STUDY IN GERMAN 3-3-0

GER 201 INTERMEDIATE GERMAN I 3-3-0

Intermediate German I is the continuation of Elementary German II. Students will master uncomplicated communicative tasks in German at a low intermediate level. Learners will express personal meaning by combining and recombining what they know and what they hear from their interlocutors into short statements. In addition, students will identify the linguistic and cultural diversity of German speaking countries through an introduction to German literature.

Prerequisite: GER 102 or equivalent (two years of high school German).

GER 202 INTERMEDIATE GERMAN II 3-3-0

Intermediate German II is the continuation of Intermediate German I. Students will master communicative tasks in German at a mid intermediate level: Learners are at ease when performing uncomplicated tasks in speaking, listening, reading, and writing. In addition, students will summarize the linguistic and cultural diversity of German speaking countries through the analysis of German movie scenes.

Prerequisite: GER 201 or equivalent.

GER 251 ADVANCED GERMAN I 3-3-0
Advanced German I is a course designed to improve proficiency in written and oral German. Students will study the contemporary culture of Germany and the German-speaking countries via authentic materials selected from authentic media as well as from cultural readings. German literature is approached through the study of representative excerpts from the works of major German authors. This class is taught in German. Outside reading is required. Prerequisite: GER 202 or approval of instructor.

GER 252 ADVANCED GERMAN II 3-3-0
Advanced German II is a continuation of Advanced German I. It is a course designed to improve proficiency in written and oral German. Students will continue to study the contemporary culture of Germany and the German speaking countries via authentic materials selected from authentic media as well as from cultural readings. German literature is approached through the study of representative excerpts from the works of major German authors. This class is taught in German. Outside reading is required. Prerequisite: GER 251 or approval of instructor

GER 299 INDEPENDENT STUDY.....3-3-0

HEALTH CARE PROFESSION

HCP 105 CAREERS IN HEALTHCARE 1-1-0
Professions in the health care industry offer students a wide range of career opportunities. This course will provide an overview of the health care industry and the variety of disciplines which support it. The course will investigate health care careers, focusing on the nature of the work, legal and ethical responsibilities, as well as required abilities, educational preparation and credentialing. Understanding the impact of current trends in health care on employment will assist students toward planning and pursuit of their own career goals. An opportunity to interface with a variety of health care practitioners encourages discussion and examination of professional activities.

HCP 114 MEDICAL LAW AND ETHICS FOR HEALTH CARE PROFESSIONALS 3-3-0
This course provides the student with a deeper understanding of legal and ethical issues in healthcare. Students explore the legal, ethical and moral dilemmas currently faced by healthcare professionals, and identify issues related to potential legal liability in the workplace. (Also offered as MAS 114.)
(Core Goal 13)

HCP 116 MEDICAL BUSINESS PRACTICES.....4-3-2
The course builds a solid foundation in Medical Office Administrative Assisting and introduces students to the administrative procedures and business practices commonly performed in medical business practices. Emphasis on medical ethics, communication skills, operational functions and workplace dynamics will help prepare the student for entry level office management. Course specific competency evaluations must be successfully completed by the student. (Also offered as MAS 116.)
Pre-requisites: Students must have completed or successfully tested out of MAT 010, ENG 011 and REA 011

HCP 120 ETHICAL ISSUES AFFECTING CONSUMERS AND THE HEALTH CARE PROFESSIONS .. 3-3-0
This course addresses the needs of the health care consumer and the provider alike. Stemming from a philosophical base, this course

will examine controversies emerging from rapid technological advances and modern health care practice. Conflicts discussed range from the person's right to choose or refuse a particular course of treatment to issues of euthanasia, genetic research, and human experimentation. Students are encouraged to participate in discussions of ethical problems reported in the popular media and to develop a personal decision-making system which can be applied to a variety of ethical issues. Emphasis is on critical analysis and the incorporation of theory to ethical deliberations. The course is interactive, therefore, open discussion format and familiarity with use of the computer is essential.
(Also offered as PHI 120.)
(Core Goals 2, 5, 6, 12 and 13)

HCP 185 ISSUES IN WOMEN'S HEALTH 3-3-0
This survey course will introduce students to the unique needs of women in issues related to health and wellness. The relationship of historical, political, biological, socio-cultural and psychological factors that influence women's health and wellness will also be examined. Topics such as reproductive and sexual health, cardiovascular disease, obesity, diabetes, cancer, stress and abuse will be explored from a holistic perspective. Students will complete an individualized plan to improve their personal health and wellness as the final activity for this course.
(Also offered as ESW 185).
(Core Goals 10 and 12)

HCP 220 GENERAL PHARMACOLOGY ... 3-3-0
Designed for the student who has a basic understanding of the human body and how it works. This course emphasizes the major drug classifications, related legal/ethical considerations, pharmacokinetics, pharmacodynamics, drug toxicity, and therapeutic monitoring.
(Also offered as NUR 220).

HCP 224 MEDICAL TERMINOLOGY . 3-3-0
This course is designed to develop a basic understanding of human body systems and the medical vocabulary associated with these systems. While attaining a working knowledge of human anatomy, students will experience a word-building system comprised of medical prefixes, suffixes and word roots which will allow them to write and develop fundamental concepts for the meaning of various medical nomenclature. Accurate spelling, medical definitions, and medical abbreviations are key elements to this course.
Prerequisite(s): Students must have successfully completed or tested out of: ENG 011, or ESL 011 or permission of the coordinator

HCP 225 HEALTH INSURANCE AND PROFESSIONAL BILLING3-3-0
This course is designed to introduce the student to the health insurance industry and the accurate processing of health insurance claims. The course will explore the basic concepts of health insurance and related federal healthcare legislation, and examine several health insurance models. Students will develop a basic knowledge of national diagnosis and procedural coding and learn the process of completing insurance claims.

HCP 226 MEDICAL CODING I .. 3-3-0
This course is designed to provide the student with an understanding of coding and classification systems in order to assign valid diagnostic and/or procedure codes for medical billing and reimbursement required by the Health Care Portability and Accountability Act (HIPAA) including the validation of coded clinical information. The ICD-10-CM classification system is introduced with an emphasis on use of the alphabetic index and tabular list for code assignment. The course focuses on ICD-10-CM rules,

conventions, and instructions as well as specific guidelines (e.g. circulatory, injury, pregnancy), including assignment criteria for principal and additional diagnoses in all applicable patient settings. The impact of proper code assignment, MS-DRGs and reimbursement are also discussed.

Prerequisite(s): Students must have successfully completed or tested out of REA 011.
HCP 224 Medical Terminology
Co-requisite(s): BIO 103

HCP 227 MEDICAL CODING II... 3-3-0

This course expands student knowledge of coding and classification systems in order to assign valid diagnostic and/or procedure codes for medical billing and reimbursement required by the Health Care Portability and Accountability Act (HIPAA) including the validation of coded clinical information. Focus is placed on ICD-10-CM and ICD-10-PCS classification systems. The course introduces the professional standards for coding and reporting of diagnostic inpatient and outpatient services and inpatient procedure services. Coding characteristics, conventions and guidelines will be applied in identifying and accurately assigning codes to diseases, conditions and procedures. Health records, manual and computerized coding methods, and coding references will be utilized in the coding process.

Prerequisite(s): HCP 226 Principles of Medical Coding I.

HCP 228 ELECTRONIC HEALTH RECORDS MANAGEMENT.....3-3-0

The course provides the student with a comprehensive understanding of electronic health record management and utilization. Emphasis on the creation, use, and maintenance of electronic health records, along with an introduction to the terminology and technology associated with the operational use of these records provides the student with the necessary skills to perform these operations in a medical office setting.
Prerequisites: Students must have successfully completed or tested out of REA 011 & HCP 224.

HCP 230 CPT CODING AND REIMBURSEMENT MATERIALS..... 3-3-0

This course is designed to expand student knowledge of medical codes used in billing and reimbursement with emphasis on Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System (HCPCS) II and the Ambulatory Payment Classifications (APCs) classification systems. The use of diagnosis and procedure codes for professional services reimbursement and coding systems for reimbursement will be analyzed. The relationship between these coding systems will be explored as well as the coding systems used by non-physician medical suppliers and for durable medical equipment.

Prerequisite(s): HCP 226 Principles of Medical Coding I
Co-requisite(s): HCP 227 Principles of Medical Coding II

HCP 246 CARDIO PULMONARY RESUSCITATION FOR THE HEALTH CARE PROFESSIONAL 1-1-0

The Cardio Pulmonary Resuscitation (CPR) for the Health care Professional course is designed to teach the skills of CPR for victims of all ages including ventilation with a barrier device, a bag-mask device, and oxygen; use of an automated external defibrillator; (AED) and relief of foreign-body airway obstruction (FBAO). It is intended for individuals who provide healthcare to clients in a wide variety of venues. These healthcare providers include but are not limited to various health career students, nurses, emergency medical technicians, respiratory therapists, medical assistants, public safety officials and other health care personnel. (Also offered as ESW 246.)

HISTORY

HIS 101 HISTORY OF WESTERN CIVILIZATION I ANCIENT MEDIEVAL & EARLY MODERN 3-3-0

This course is a survey of the origins of Western Civilization starting with prehistoric man and the emergence of agriculture. The course continues with the study of the Ancient Near Eastern Civilizations, Greece and Rome, the Middle Ages and Europe up through the Renaissance and Reformation to roughly the eighteenth century. These civilizations are studied by looking at their economy, religion, politics, art, literature and everyday life.

(Core Goals 6, 7, 9, 12 and 13)

Prerequisites: Students must have successfully tested out of/ completed ESL 011 or ENG 011 and REA 011 or REA 017.

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

HIS 102 HISTORY OF WESTERN CIVILIZATION II MODERN EUROPEAN HISTORY 3-3-0

A survey of Western Civilization covers the period from the middle of the seventeenth century to the twenty-first century. The course begins with the Scientific Revolution, Enlightenment and the French Revolution, and then proceeds to look at other challenges in society and culture and the impact of the West on the rest of the world through imperialism, totalitarianism and conflict. The Cold War and the modern period conclude the course.

(Core Goals 6, 9, 12 and 13)

Prerequisites: Students must have successfully tested out of/ completed ESL 011 or ENG 011 and REA 011 or REA 017.

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

HIS 121 WORLD CIVILIZATIONS I: TO 1500..... 3-3-0

A survey of world civilizations covers the period from prehistory to the sixteenth century. The course begins with the origin of humans, first river valley civilizations, empire-building, foundations of the great world religions, and then proceeds to look at the rise of Europe. The Renaissance and the early explorers will conclude the course. Government, societal, economic, cultural, and religious aspects are analyzed throughout the course.

(Core Goal7)

HIS 122 WORLD CIVILIZATIONS II: FROM 1500.. 3-3-0

This course is a continuation of HIS 121. It is a survey of the major events that have occurred in the world since 1500. The interrelationships between the civilizations of Asia, Africa, Europe and the Americas provide many opportunities for comparison of their varied histories. This course will help students gain a clearer understanding of a complicated, interdependent modern world.

(Core Goals 6 and 12)

HIS 160 HISTORIC PRESERVATION 3-3-0

This is a one-semester course on historic preservation in the United States. Topics include the history of historic preservation, a brief survey of architecture, the relationship of archaeology and material culture to historic preservation and an overview of the National Register of Historic Places and the requirements and benefits of listing a property in the National Register. The role of local, state and federal governments and the role of the individual in historic preservation will be explored.

HIS 203 HISTORY OF THE UNITED STATES: TO 1877.....3-3-0

A survey of the political, social, economic, and intellectual history of the United States from pre-Columbian Native Americans through the period of the Civil War and Reconstruction.

Prerequisites: Students must have successfully tested out of/or completed ESL 011 or ENG 011, and ESL 017 or REA 011 (Core Goals 6, 9 and 12)

HIS 205 HISTORY OF THE UNITED STATES: FROM 1877..... 3-3-0

A survey of the political, economic and intellectual history of the United States from the period of Reconstruction until the present. Emphasis is on the rise of industrial America and the growth of the country as a world power in the 20th Century. (HIS 205 can be taken without taking HIS 203.)

Prerequisites: Students must have successfully tested out of/or completed ESL 011 or ENG 011, and ESL 017 or REA 011. (Core Goals 6, 9, 12 and 13)

HIS 210 HISTORY OF PENNSYLVANIA 3-3-0

A history of the state of Pennsylvania that emphasizes the key role it has played in the history of the nation. Emphasis will be placed on industrial development, cultural contributions, military events, and constitutional issues in which Pennsylvania has had a pivotal role. A regional visit to one historic site is a course requirement.

HIS 213 THE CIVIL WAR AND RECONSTRUCTION..... 3-3-0

This course covers the period from the election of Lincoln in 1860 to the end of Reconstruction in 1877. The military history of the war will be studied in its political and social contexts. Stress will be given to the revolutionary changes brought about by the war, especially those affecting African-Americans. Causes of the Civil War and how it evolved into a war against slavery, will be studied.

(Core Goals 6, 9 and 13)

HIS 214 AFRICAN-AMERICAN HISTORY AND CULTURE 3-3-0

This course is a chronological survey of the history of African Americans from their African beginnings through their progress in the twenty-first century. Five units in the history of African Americans will be emphasized-becoming African American, antebellum black life, the Civil War and Reconstruction, White Supremacy and legalized justice, and the Civil Rights movement through the modern era.

(Core Goals 6, 9, 12 and 13)

HIS 215 AMERICAN IMMIGRATION 3-3-0

This course will examine the immigrant experience in the United States in a loose chronological manner by focusing on diversity issues, analyzing legislation and highlighting anti-immigrant social movements. The students will research the personal aspect of immigration by studying the lives of immigrants in autobiographical accounts and historical fiction. Class discussions will focus on discovering to what extent America is a society of immigrants.

HIS 218 HISTORY OF LATIN AMERICA 3-3-0

This course provides a survey of Latin America from pre-Columbian times to the present. Emphasis is placed on the twentieth century. Trends in political, economic, social and cultural development are studied, as well as the relationship between the United States and Latin America.

Prerequisites: One semester of Western Civilization OR consent of the instructor (Core Goals 12 and 13)

HIS 219 THE VIETNAM WAR 3-3-0

This course covers the experience of Americans and Vietnamese, soldiers and civilians in the Vietnam War. It has three parts: 1) the

origins of American involvement, 1945-1963; 2) the war America waged on the ground and in the air; 3) the impact of the war on American society and government.

(Core Goals 6 and 9)

HIS 220 WOMEN IN AMERICA 3-3-0

This course is a chronological survey of the role of women in American history from the colonial period up to the modern day. It examines the experiences of women from various ethnicities and economic backgrounds. The contributions of women to the political, economic, and social development of the nation will be emphasized. The historiography and theory of the field of women's history will also be a focus.

(Core Goal 12)

Prerequisites: Students must have successfully tested out of/or completed ESL 011 or ENG 011, and ESL 017 or REA 011.

HIS 225 TOPICS IN MODERN HISTORY 3-3-0

Specialized sophomore level courses which will deal with a different subject each semester. Included will be such chronological histories as those of France, Germany, or England, or such topical histories as War, Society and Technology Western Imperialism or Culture and Society in European life. Check with the History Coordinator as to which subject is dealt with when the course is offered.

HIS 234 ASIAN CIVILIZATION 3-3-0

A survey of the major civilizations of "Monsoon Asia" with the focus on India, China and Japan. This course will emphasize political, economic, social and cultural forces that have shaped Asian civilization. Students will gain a greater appreciation of the differences and similarities between Asian civilization and the rest of the world.

(Core Goals 6, 9, 12 and 13)

HIS 235 MODERN CHINA 3-3-0

This course explores the origins and development of Modern China. The main subjects of the course are the fall of the Qing dynasty, the Western influence, the rivalry between the Chinese Communist Party and the Nationalist Guomindang Party, the Sino-Japanese War, and the emergence of the People's Republic of China, from the Mao years to the present.

(Core Goals 6, 9, 12 and 13)

HIS 237 INDIAN CIVILIZATION3-3-0

This course is a topical introduction to Indian civilization from its ancient origins to the rise of modern, technological India. It will focus on the history and culture of India, including religious traditions, caste, imperialism and the British Raj, the Indian nationalist movement, the life and ethics of Gandhi, the impact of modernization, and India's global role.

Prerequisite: Students must have successfully completed or tested out of ENG011 or ESL011, and REA 017 or REA 011.

HIS 241 THE HOLOCAUST: FROM ANTI-SEMITISM TO THE "FINAL SOLUTION" 3-3-0

A survey of the Holocaust, the attempted annihilation of the Jews of Europe by Nazi Germany between 1933 and 1945. This course also focuses on other destructive crimes carried out by Nazi Germany, including the mass murder of the Gypsies and the mentally and physically handicapped. The course will emphasize the nature and significance of the Holocaust and the impact of prejudice, racism, and stereotyping in other societies.

HIS 250 HISTORY OF THE MODERN MIDDLE EAST 3-3-0

After a brief survey of the Islamic background of the Middle East and the analysis of the rise and decline of the Ottoman Empire, the course focuses on the development of the Middle East since Napoleon's invasion of Egypt in 1798. Modernization, imperialism, and nationalism are the dominant themes in the history of this region in the 19th and 20th centuries. The national histories of Turkey, Iran, the Arab states, and Israel are examined. Attention is given to the role of the Great Powers in the Middle East.
(Core Goals 6, 9 and 12)

HIS 260 HISTORY OF RUSSIA 3-3-0

This course covers the period of Russian history from the beginning of the nineteenth-century to present times. The course begins with the brief history of Russia before 1800s and then proceeds to look at changes in the social, economic and political structure of pre- revolutionary Russia, as well as the formation of the Soviet Union, its break-up in 1991 and the post-Soviet period.
(Core Goals 6, 9, 12 and 13)

HIS 299 INDEPENDENT STUDY IN HISTORY3-3-0

HONORS

Honors Colloquia are 1-credit interdisciplinary seminars that focus on a specific theme of interest. Themes vary each semester. Honors Scholarship students are required to complete three 1-credit colloquia in order to complete honors program requirements. Students not enrolled in the honors program are welcome to enroll in colloquia with instructor approval on a space available basis.

HON 101 HONORS COLLOQUIUM I 1-1-0

This is the first one-credit course in a series of three. The Honors Colloquium provides Honors students with an opportunity to explore and acquire a comprehensive understanding of a variety of classic and contemporary issues. Each Honors Colloquium explores a theme from the perspective of multiple scholarly disciplines. Honors students are introduced to interdisciplinary perspectives on the chosen theme utilizing student/faculty led presentations and discussions, guest speakers, films, museum visits, and on and off-campus fine arts presentations, as appropriate. Open only to students enrolled in the Honors Programs.
Prerequisites: None.

HON 102 HONORS COLLOQUIUM II 1-1-0

This is the second one-credit course in a series of three. The Honors Colloquium provides Honors students with an opportunity to explore and acquire a comprehensive understanding of a variety of classic and contemporary issues. Each Honors Colloquium explores a theme from the perspective of multiple scholarly disciplines. Honors students are introduced to interdisciplinary perspectives on the chosen theme utilizing student/faculty led presentations and discussion, guest speakers, films, museum visits, and on and off-campus fine arts presentations, as appropriate. Open only to students enrolled in the Honors Program.
Prerequisites: None.

HON 103 HONORS COLLOQUIUM III 1-1-0

This is the third one-credit course in a series of three. The Honors Colloquium provides Honors students with an opportunity to explore and acquire a comprehensive understanding of a variety of classic and contemporary issues. Each Honors Colloquium explores a theme from the perspective of multiple scholarly disciplines. Honors students are introduced to interdisciplinary perspectives on the chosen theme utilizing student/faculty led presentations and discussion, guest speakers, films, museum visits, and on and off-campus fine arts presentations, as appropriate. Open only to students enrolled in the Honors Programs.

HOTEL/RESTAURANT MANAGEMENT

HOS 111 INTRODUCTION TO THE HOSPITALITY INDUSTRY 3-3-0

This course is designed to introduce the student to the vast variety of career opportunities and career paths within the world's largest and fastest growing industry. Each segment is discussed in terms of its growth potential, trends, unique characteristics, and management responsibilities. Field trips are taken hospitality-industry related operations which may include hotels, restaurants, country clubs, conference centers, caterers and retirement communities.
Co-requisite(s): HOS 115 – Principles of Customer Service and Bar Management; for Hospitality Management students only.

HOS 115 PRINCIPLES OF CUSTOMER SERVICE AND BAR MANAGEMENT3-3-0

This course is designed to give the student an introduction to the basic management controls for a full-service dining room offering food and beverages including those in hotels and other segments of the industry. Included are food and beverage service techniques, dining room personnel control procedures, guest payment procedures, and extensive coverage of alcohol service and bar management. Students will have the opportunity to complete the National Restaurant Association's ManageFirst certificate program in three key areas: Bar and Beverage Management, Customer Service, and ServSafe Alcohol. Students may be required to participate in campus events such as International Night.
Co-requisite(s): HOS 111 - Introduction to the Hospitality Industry

HOS 199 INDEPENDENT STUDY IN HOSPITALITY MANAGEMENT I3-0-6

HOS 214 FUNDAMENTALS OF SPECIAL EVENT MANAGEMENT. 3-2-10

This course is designed to introduce students to the special events segment of the hospitality industry. The course provides principles and practice related to all facets of this growing career specialty. Discussions will emphasize best practices and trends. Students participate in the planning and execution of on-campus special events. Note: To be taken in the last semester.
Prerequisites: HOS 215, HOS 220, and HOS 231 or permission of Coordinator/instructor.

HOS 215 CONCEPTS OF QUANTITY FOOD PREPARATION AND SANITATION.....4-3-2

This course is designed to introduce students to basic food preparation theory and techniques, preparing food in large quantities with an emphasis on quality and quantity standards. Planned preparations include quick breads, yeast breads, soups, sauces, salad dressings and ingredients, side dishes, and entrees to be completed in a commercial kitchen lab on campus. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students have the opportunity to earn the National Restaurant Association's ServSafe Sanitation Certification which is required in Montgomery County.
Prerequisite(s): HOS 111 and HOS 115

HOS 220 STRATEGIES OF HOSPITALITY PROFITABILITY AND MENU MANAGEMENT.....3-3-0

This course is designed to teach the student the importance of the menu as the single controlling document in the vast variety of hospitality operations. Topics include menu design and development, government regulations, pricing, and menu management, purchasing, receiving, inventory and variations related to industry sectors such as lodging operations, business and industry operations, and other segments. Students will complete a menu and operation guide as a group project which will be presented to the class.

Prerequisite(s): HOS 111 - Introduction to the Hospitality Industry.

HOS 231 HOSPITALITY MARKETING.....3-3-0

This course is designed to provide the student with an understanding of the basic marketing concepts as they apply to the hospitality industry. Emphasis is placed on the concept of the five P's of Marketing – People, Product, Package, Price, and Promotion. Students will have the opportunity to earn a certificate of completion from the National Restaurant Association's Manage First program. Students will complete a group marketing project with in-class presentation.

Prerequisite(s): HOS 111 – Introduction to the Hospitality Industry HOS 115 – Principles of Customer Service and Bar Management, or permission of the Coordinator/instructor.

HOS 241 APPLIED HUMAN RESOURCES MANAGEMENT3-3-0

This course is designed to provide the student with an introduction to the basic human resources and supervisory functions in the operation of a hospitality operations. Included are personnel recruitment, selection, orientation, training, and development. Students will have the opportunity to earn a certificate of completion from the National Restaurant Association's Manage First program. To be taken in the last semester

Prerequisite(s): HOS 231, or permission of Coordinator/instructor

HOS 251 HOTEL MANAGEMENT 3-3-0

This course is designed to provide the students with an introduction to the basic control procedures and management responsibilities for the Front Office Department and the Housekeeping Department of a commercial hotel or other lodging destination. (to be taken in the last semester).

Prerequisite(s): HOS 111 - Introduction to the Hospitality Industry HOS 115 – Principles of Customer Service and Bar Management, or permission of Coordinator/instructor

HOS 261 CASINO AND GAMING MANAGEMENT.....3-3-0

This course provides students with an overview of casino management. The casino/gaming entertainment industry will be examined through its history, games and physical operations. The social and legal implications of the casino/gaming entertainment industry will be discussed. Class trips will be taken to casino hotels in the Greater Delaware Valley or New Jersey. To be taken in the last semester.
Prerequisite(s): Students must have successfully completed or tested out of: MAT 011, REA 017, REA 018, ESL 011, ENG 011 plus completed HOS 111, HOS 231 or permission of the Coordinator/instructor.

HOS 298 COOPERATIVE INTERNSHIP IN HOSPITALITY MANAGEMENT II.....2-0-10

This is a work-experience course in which the student is required to work a minimum of 150 hours in a college-approved hospitality position in the student's area of specialization. The position may be a paid or unpaid situation. Student must seek approval from the program Coordinator or instructor for externship approval. Once approval is received, students begin recording hours. Experience must be completed during the last semester of attendance in the program.

Prerequisite(s): HOS 111, HOS 115, HOS 220, HOS 231, and HOS 215.

HOS 299 INDEPENDENT STUDY IN HOSPITALITY MANAGEMENT II3-0-6

HUMAN SERVICES

HSW 101 INTRODUCTION TO HUMAN SERVICES AND THE HELPING PROFESSION 3-3-0

This course is designed to help students explore human services as a generalist human service professional. Emphasis is on historical development, roles of the human service professional, theories of helping, technology, managed care, crisis intervention, international and multicultural issues in human services. Students are encouraged to examine themselves as helpers in the human service profession. Open to all majors.

HSW 102 THEORIES OF GROUP COUNSELING 3-3-0

A survey of therapeutic modalities commonly employed in group settings. Students are expected to carefully analyze the theories presented and to begin developing a basis for their own theory of effective group work with various populations.

Prerequisite: HSW 101.

HSW 105 SOCIAL POLICY AND ETHICS IN HUMAN SERVICES 3-3-0

This course examines the relationship of social policy, ethics, and the human services field. Students will address ethical dilemmas, particularly as they relate to current and needed social policies on local, state, and national levels. A basic understanding of social welfare theories will assist the student in evaluating, assessing, and advocating for change in both a micro/macro perspective. The Ethical Standards of Human Service Professionals (National Organization for Human Services) will serve as a backbone for students to use in decision-making, assessment of clients and client groups, and promotion of change in a diverse setting. Open to all majors. (Also offered as SOC 105)

(Core Goals 9, 12 and 13)

HSW 130 INTRODUCTION TO YOUTH AND FAMILY SYSTEMS 3-3-0

This introductory course examines children and youth within the context of their familial role. Emphasis is placed upon non-traditional as well as traditional family systems and the impact that issues such as divorce, substance abuse, child abuse and incarceration has on the various units in the family system. (Also offered as SOC 130.) Open to all majors.

HSW 155 INTRODUCTION TO AGING 3-3-0

This basic, overview course is designed to introduce and sensitize the student to those personal and social forces which have impact on the lives of older adults in contemporary America. Commonly held attitudes about older persons and aging will be examined, along with current theories and prominent bodies of knowledge associated with biological, psychological and sociological aspects of aging. Roles which older adults assume in various settings and institutions as well as the responses of society to older adults will be emphasized. Open to all majors.

HSW 160 THE MIDDLE YEARS 3-3-0

This course explores the developmental stages of the middle years of the life span: the twenties, thirties, forties, and fifties. The course covers the major psychosocial theories and research on how we adapt to the psycho-dynamic and cultural pressures of middle age. It is designed for those whose work brings them into contact with adults and for students of all ages (including those who are anticipating, experiencing, or who have completed the changes of middle adulthood). The unique pressures on the "sandwich" generation (who have responsibility for teenagers and aging parents) will be examined. Open to all majors.

HSW 202 THEORIES OF INDIVIDUAL COUNSELING 3-3-0

Professionalization, ethics and the impact of values on the helping process are considered. Special attention is given to evaluation research (accountability), testing and report writing and their use in various settings. Students develop their own theory of helping, explain its relationship to existing theories and demonstrate its application(s).
Pre-requisite: HSW 101.

HSW 203 ASSESSMENT AND DOCUMENTATION IN HUMAN SERVICES 3-3-0

This course is designed to teach students the necessary skills to assess and document client interactions in a human services agency or program. Students will explore the nature of the helping relationship, demonstrate their active listening abilities, learn how to gather information, build treatment plans, and write case notes. Students will also understand case management in a managed care environment, and the legal, ethical and regulatory implications of comprehensive assessment and documentation. (Also offered as PSY 203)
Pre-requisite: HSW 101, ENG 101. Students must have successfully completed these courses with a grade of "C" or higher.

HSW 205 VOLUNTEER ADMINISTRATION ... 3-3-0

This course examines the development and role of volunteerism in a profit-oriented society. Specifically, it is an in-depth exploration of the fundamentals of volunteer organization and management from an administrative perspective. It is designed for those whose work brings them into contact with volunteers, the currently employed volunteer administrator and the student who will eventually be involved with volunteer management. Open to all majors.
(Core Goal 11)

HSW 206 HOSPICE: CONCEPTS AND SKILLS 3-3-0

A course designed for those whose work brings them into contact with the dying (and their families) or for anyone who wishes to understand the issue of his/her own mortality in relation to the life cycle. Students will have the opportunity to examine the "hospice without walls" concept, to clarify attitudes toward death and dying, and to explore how such attitudes are learned and can be changed. Skills that can be acquired and practiced include: hospice and grief outreach and counseling, administration of cost-effective hospice counseling in the social service agency, and mobilizing support networks for the dying and their families. Open to all majors.

HSW 210 PROFESSIONAL DEVELOPMENT IN HUMAN SERVICES 3-3-0

This course is designed to prepare students for the practicum experience through professional self reflection and development. Students will evaluate human service agencies, organizational structures, and funding sources. Students will select a field site, process agency interview, and prepare for supervision in the field. Topics such as self-assessment, document gathering, and certification reviews will be addressed. The development of portfolio management demonstrating interpersonal styles, and program competency will be required. Students must pass this course with a grade of "C" or higher before taking HSW 211.
Pre-requisites: HSW 102 or 202, and HSW/PSY 203

HSW 211 HUMAN SERVICES PRACTICUM I 6-0-14

A course designed to integrate human services theory within a practical milieu. Through supervised clinical experience, the student begins hands-on training in a community agency. Skills focused upon are intake interviewing, case management, assessment of client/consumer needs and intervention strategies to meet those needs, individual and group counseling, outreach activities, recording procedures, appropriate use of community referral and networking resources, staff relations, and inter-agency communication, evaluating program services and volunteer participation. Two hundred and eighty hours of recorded clinical experience are required in addition to a one and half-hour seminar every other week. Restricted to HSW majors.
Prerequisites: ENG 101, HSW 210, and an overall GPA of a "C" or better in both Program and College courses. Coordinator approval required.

HSW 216 ASSESSMENT AND TECHNIQUES FOR CHILDREN AND YOUTH 3-3-0

This course is designed to develop knowledge and skills in assessing the risk factors in the current situation of the child and/or adolescent. The course will focus upon the youth's educational, social, psychological, emotional and physical environment to determine the level of required intervention. Students will learn the techniques needed to assess and reduce risk factors. (Also offered as PSY 216.)
Prerequisite: HSW 101

HSW 219 THE DRUG AND ALCOHOL TREATMENT PROCESS: AN INTRODUCTION 3-3-0

Designed to provide a working knowledge of the helping process as it applies to drug and alcohol counseling. Students completing this course should be able to: develop assessment and diagnostic skills; formulate appropriate goals, and treatment plans. Students will improve interviewing and intervention skills with drug/alcohol clients; and be able to discuss and compare individual, group, and family treatment approaches. Students will describe the levels of service available to drug/alcohol clients and their families; use AA, AL-ANON and other support groups as treatment allies. Students will appreciate the

impact of sex, age, ethnicity, race and religion on the treatment process; and understand the American Psychiatric Associations (DSM IV) assessment of substance use disorders, anti-social personalities and depression. Open to all majors. (Also offered as PSY 219.)

HSW 220 INTRO TO ADJUNCTIVE THERAPIES 3-3-0
A survey of adjunctive therapies and activities that enhance the therapeutic poetry, psychodrama and biofeedback. Open to all majors.

**HSW 250 PSYCHOLOGY OF AGING:
HELPING SKILLS IN WORKING WITH OLDER ADULTS 3-3-0**
This course is an in-depth exploration of psychological theories and their applications to appreciating and working with older adults. Students will have the opportunity to gain an increased understanding of their own personal development and self-knowledge in the context of the life cycle and to explore feelings about the aging process. Classroom experiences that focus on enhancing communications skills will be designed to enable students to translate psychological theories and helping techniques to every day family and job-related encounters with older adults. This course is open to all majors. (Also offered as PSY 250.)

Prerequisite: HSW 155 or PSY 101 or SOC 101.
For the Gerontology Certificate, HSW/PSY 250 will be substituted for HSW 102 or 202 to meet prerequisite for HSW 210.

HSW 254 AGING IN THE UNITED STATES3-3-0
This course is an in-depth exploration of the current social issues concerning older adults in U.S. society. Students will examine the social needs which confront all older people and those needs of particular sub-groups of the older population such as the frail elderly, women and minorities. Emphasis will be placed on reviewing the legislation which has led to the creation of programs and services for meeting the needs of older adults and on analyzing the system of services to detect areas of unmet needs, such as the need for "long-term care." Students will have the opportunity to gain an understanding of techniques of advocacy which can be used on behalf of and in concert with older persons. This course is open to all majors. (Also offered as SOC 254.)

Prerequisite: HSW 155 or PSY 101 or SOC 101

HSW 299 INDEPENDENT STUDY IN HUMAN SERVICES3-3-0

INTERDISCIPLINARY STUDIES

IDS 115 ISSUES OF RACE AND ETHNICITY3-3-0
This course analyzes the realities and mythologies that surround the issue of race in the modern world. Perspectives from multiple disciplines are used to examine the concept of race and its meaning, nature and significance in various contemporary issues. The topics considered in this course include the economic, political and social issues of the day and the possibilities of finding solutions as we tackle the problems relating to the issue of race. (Core Goals 11 and 12)

IDS 116 CHILDHOOD IN AMERICA.....3-3-0
This course is designed to expose students to American childhood and youth experiences from a variety of racial, ethnic, class and gender perspectives. The course will be a thematic exploration of a wide range of topics that include but are not limited to: familial and social relationships, social and political movements, educational experiences and economic conditions in the twentieth and twenty-first centuries. The course will examine childhood through an interdisciplinary approach, incorporating history, literature and sociology to help students contextualize individual and groups experiences. (Core Goals 9, 12 and 13)

ITALIAN

ITA 101 ITALIAN I 3-3-0
Elementary Italian I is an introduction to the Italian language. Students will learn to master basic communicative situations in Italian at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Italian. In addition, students will learn about the various cultures in Italy. (Core Goal 12)

ITA 102 ITALIAN II 3-3-0
Elementary Italian II is the continuation of Elementary Italian I. Students will master basic communicative situations in Italian at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in Italian. In addition, students will identify the linguistic and cultural diversity of Italy. (Core Goal 12)
Prerequisite: ITA 101 or approval of coordinator or fulltime faculty member who teaches Italian.

ITA 199 ITALIAN INDEPENDENT STUDY. 3-3-0

ITA 201 INTERMEDIATE ITALIAN I 3-3-0
Intermediate Italian I is the continuation of Elementary Italian II. Students will master uncomplicated communicative tasks in Italian at a low intermediate level. Learners will express personal meaning by combining and recombining what they know and what they hear from their interlocutors into short statements. In addition, students will identify the linguistic and cultural diversity of Italy through an introduction to Italian movies. (Core Goal 12)
Prerequisite: ITA 102 or approval of instructor

ITA 202 INTERMEDIATE ITALIAN II 3-3-0
Intermediate Italian II is the continuation of Intermediate Italian I. Students will master communicative tasks in Italian at a mid intermediate level. Learners are at ease when performing uncomplicated tasks in speaking, listening, reading, and writing. In addition, students will identify the linguistic and cultural diversity of Italy through an introduction to Italian literature. (Core Goal 12)
Prerequisite: ITA 201 or equivalent.

ITA 251 ADVANCED ITALIAN I 3-3-0
Advanced Italian I is a course designed to improve proficiency in written and oral Italian. Students will study the contemporary culture of Italy via authentic materials selected from authentic media as well as from cultural readings. Italian literature is approached through the study of representative excerpts from the works of major Italian authors. This class is taught in Italian. Outside reading is required. (Core Goal 12)
Prerequisite: ITA 202 or approval of instructor

ITA 252 ADVANCED ITALIAN II 3-3-0
Advanced Italian II is a continuation of Advanced Italian I. It is a course designed to improve proficiency in written and oral Italian. Students will continue to study the contemporary culture of Italy via authentic materials selected from authentic media as well as from cultural readings. Italian literature is approached through the study of representative excerpts from the works of major Italian authors. This class is taught in Italian. Outside reading is required. (Core Goal 12)
Prerequisites: ITA 251 or approval of instructor

ITA 299 IND STUDY IN ITALIAN.....3-3-0

JAPANESE

JPN 101 JAPANESE I 3-3-0

Elementary Japanese I is an introduction to the Japanese language. Students will learn to master basic communicative situations in Japanese at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Japanese. In addition, students will learn about the various cultures in Japan.

(Core Goal 12)

Prerequisite(s): Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

JPN 102 JAPANESE II 3-3-0

Elementary Japanese II is the continuation of Elementary Japanese I. Students will continue to master basic communicative situations in Japanese at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in Japanese. In addition, students will identify the linguistic and cultural diversity of Japan.

(Core Goal 12)

Prerequisite: JPN 101 or approval of instructor

JPN 199 INDEPENDENT STUDY IN JAPANESE 3-3-0

JPN 201 INTERMEDIATE JAPANESE I (CONVERSATIONAL) 3-3-0

This course introduces students to conversational Japanese using the modules of the subjects. Using sentence patterns and common expressions, it stresses communication with Japanese people at a low intermediate level. The conversational skills and vocabulary building will be enhanced by listening to the accompanying AV/Multimedia materials. The students will be encouraged to express his/her own ideas verbally using simple sentence patterns in the class. The study of Kanji is introduced.

Prerequisites: JPN 102 or equivalent and permission of instructor.

JPN 202 INTERMEDIATE JAPANESE II (CONVERSATIONAL) 3-3-0

Intermediate Japanese 202 is a continuation of Intermediate Japanese 201 with extensive practice in building vocabulary and conversational skills at a mid intermediate level. The recognition of Kanji writing as well as advanced grammar will be covered as the class progresses. The analysis of dialogues and the creation of skits will give the student practice in conversation.

Prerequisites: JPN 201 or equivalent and permission of instructor.

JPN 299 INDEPENDENT STUDY IN JAPANESE 3-3-0

MANAGEMENT

MGT 110 INTRODUCTION TO BUSINESS 3-3-0

Students will learn the organization and management of an enterprise, including a study of the characteristics of economic systems, the nature and functions of management, and the operations of the basic organizational functions of finance, marketing, and production.

MGT 111 PRINCIPLES OF MANAGEMENT 3-3-0

In addition to building a solid foundation of management fundamentals, this course introduces students to emerging concepts and issues that are shaping the theory and practice of management. Students discuss

quality, productivity, customer satisfaction, global management, social responsibility, ethics and other topics that students will encounter both on the job and in any advanced studies.

(Core Goals 12 and 13)

MGT 121 SMALL BUSINESS MANAGEMENT 3-3-0

Students gain practical knowledge about starting and managing a small business organization. Course topics include the development of a business plan, financial structuring, site selection, marketing strategies and pricing techniques.

MGT 131 HUMAN RESOURCES MANAGEMENT 3-3-0

Students learn personnel procedures and practices. Topics include equal opportunity, personnel planning, employee selection, employee incentive systems, and performance appraisal.

MGT 141 PRINCIPLES OF RISK MANAGEMENT AND INSURANCE 3-3-0

Students learn the fundamentals of risk management and the appropriate application of insurance. The course stresses the nature of risk as well as the purpose and use of insurance in risk management.

MGT 160 CUSTOMER RELATIONSHIP MANAGEMENT 3-3-0

This course introduces students to major issues and creative problem-solving in managing customer relationships. Important strategies necessary to maintain high quality relationships with customers in a competitive, challenging, and complex environment are developed. Current trends in the industry will be reviewed, and students will develop the ability to interpret these trends and will develop the skills necessary to achieve excellence in managing customer relationships in a dynamic marketplace.

MGT 198 CO-OP INTERNSHIP IN MANAGEMENT I 3-0-15

This course consists of employment in a college-approved business organization to enable the student to gain insight into modern management techniques. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.

(Full time students only - with permission of instructor).

MGT 210 ETHICAL DECISION MAKING IN BUSINESS 3-3-0

This course emphasizes the complexities of business decision making within an ethical framework. After identifying the wide variety of ethical issues facing individuals in business and the moral philosophies which can be applied, the course will develop an ethical decision-making framework. Both the role of the individual and of the organization in influencing ethical decision making will be emphasized as will the impact of cultural influences on international business ethics. Managing ethics will be proposed as an essential part of the function of organizational leaders.

(Core Goals 2, 12 and 13)

Prerequisites: MGT 110 or MGT 111 and ACC 150 or 151, or equivalents.

MGT 221 SUPERVISION 3-3-0

Students will develop the skills and knowledge necessary to grow into a supervisory position in a business environment. Students will integrate the knowledge gained in basic business courses and refine the basic supervisory and management skills learned in these courses. Students learn how to supervise effectively in a business environment.

Prerequisite: MGT 110 or MGT 111.

MGT 231 PROJECT MANAGEMENT 3-3-0

This course will introduce students to key aspects of contemporary project management. Through hands-on exercises and case studies, students will learn the project planning process in detail, culminating in the creation of a baseline plan and budget using a state-of-the-art project management tool. Topics addressed will be project scope and objectives, deliverables, milestones, tasks, work breakdown structure, responsibility and authority, project network, critical path analysis, costs, resource allocation, and auditing. (Also offered as CIS 231.)

Prerequisites: CIS 110 & MGT 111 or equivalent business experience.

MGT 298 CO-OP INTERNSHIP IN MANAGEMENT II 3-0-15

This course consists of continued employment in a college-approved business organization to enable the student to gain insight into modern management techniques. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. (Full-time students only-with permission of instructor.)

Prerequisites: MGT 198.

MARKETING

MKT 111 PRINCIPLES OF MARKETING 3-3-0

Students will learn the principles of marketing strategy planning, including target market and marketing mix variables with emphasis on key strategy decisions in each area. This course will explore organizational marketing activities including: consumer behavior, marketing research, legal and ethical issues and environmental influences. The course will also cover implementation, control, marketing's link with other functional areas and the challenges and opportunities that exist for marketers.

(Core Goals 12 and 13)

MKT 121 PERSONAL SALES MANAGEMENT 3-3-0

This course focuses on highlighting the sales person as an essential element in providing value to an organization and to the customer. The course emphasizes the importance of securing, building and maintaining long term relationships in sales. This course presents clear and concise information on successful approaches to selling in the contemporary business environment. Students will learn how to manage and add value to the buyer-seller relationship process. Students will learn to apply the model for relationship selling that is used by firms today.

MKT 131 ADVERTISING AND PROMOTION 3-3-0

Students learn the theory and practice of advertising and marketing promotions, including advertising principles and practices plus the integration of other types of marketing promotions. Focus is on the process of advertising, promotions and media working together for strategic and effective marketing communications. Emphasis is placed on understanding, identifying, evaluating, selecting and planning the various types of promotions.

MKT 141 RETAIL MERCHANDISING 3-3-0

Students learn basic concepts of retailing organizations and their structure. Special emphasis is placed on helping each student to discover an area of retailing which may offer a challenging and rewarding career.

MKT 198 CO-OP INTERNSHIP IN MARKETING I 3-0-15

This course consists of employment in a college-approved distributive organization to enable the student to gain insight into selling and

merchandising practices of distributors. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. (Full-time students only-with permission of instructor.)

MKT 211 ELECTRONIC MARKETING 3-3-0

This course is designed to provide a structured and comprehensive look at the complex and challenging areas of Electronic Marketing. Classic marketing principles will be applied to Electronic Marketing. Students will learn how to maximize the power of Electronic Marketing in the business world and assess the opportunities available with Electronic Marketing. Students will develop proficiency in making critical strategic marketing decisions. Students will learn to appreciate the innovation and technology of this growing Marketing media and acquire the knowledge to implement Electronic Marketing solutions into marketing strategies.

Prerequisites: MKT 111 or equivalent experience.

MKT 298 CO-OP INTERNSHIP IN MARKETING II 3-0-15

This course consists of continued employment in a college-approved distributive organization to enable the student to gain insight into the selling and merchandising practices of distributors. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance (Full-time students only-with permission of instructor.)

Prerequisites: MKT 198.

MATHEMATICS

MAT M99 TOPICS IN MATHEMATICS 1-1-0

Readings are chosen for current interest and mathematical content in areas of mathematical applications in social sciences, economics, or natural sciences. The content, objectives and format will be available to students prior to preregistration for those semesters in which this course is offered.

***MAT 010 FUNDAMENTALS OF ARITHMETIC 0-3-0**

A fundamental course in basic mathematical skills. This course does not offer degree credit. Topics include operations on signed numbers, fractions, decimals, percents, and other arithmetic topics. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: An Arithmetic Accuplacer Test Score of 0 to 72.

*Placement into developmental courses restricts college level course choices.

***MAT 010B REVIEW OF THE FUNDAMENTALS OF ARITHMETIC 0-1-0**

A fundamental course in basic mathematical skills. This course does not offer degree credit. Topics include operations on signed numbers, fractions, decimals, percents, and other arithmetic and pre-algebraic topics. Upon successful completion of the final exam in this course with a grade of 70% or higher, students will be eligible to enroll in MAT 011 (Beginning Algebra). This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: An Arithmetic Accuplacer Test Score of 41 to 72.

*Placement into developmental courses restricts college level course choices.

***MAT 011 BEGINNING ALGEBRA 0-3-0**

A first course in algebra with some review of arithmetic. It introduces the beginning concepts of algebra and is appropriate for students with a weak background or no background in algebra. Topics include signed numbers, algebraic terminology, basic operations on algebraic expressions and exponents, solution of linear equations and inequalities, solutions of quadratic equations, graphing, simple factoring, algebraic fractions, and word problems. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse. Students taking an on line section (YO) of MAT 011 will need to submit materials by fax or as an attachment in email. Graphs may need to be faxed. Course materials will be presented in an electronic format.

Prerequisites: Math placement test recommendation of MAT 011 or MAT 010, with a minimum grade of "C."

*Placement into developmental courses restricts college level course choices.

MAT 011B BEGINNING ALGEBRA WITH REVIEW OF ARITHMETIC 0-4-0

This is a first course in algebra with a significant review of arithmetic. The course reviews arithmetic operations with decimals and fractions, measurement and basic geometry. It introduces the beginning concepts of algebra through applications. Algebraic topics include signed numbers, algebraic terminology, basic operations on algebraic expressions and exponents, solution of linear equations and inequalities, simple factoring, algebraic fractions, quadratic equations, slope, graphs of linear and quadratic equations, and word problems. The course is appropriate for students with a weak math background and who need of a review of arithmetic. The TI-30X calculator is recommended for the course. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisites: Math placement test recommendation of MAT 011 or MAT 010, with a minimum grade of "C."

MAT 100 INTERMEDIATE ALGEBRA 3-3-0

An intermediate algebra course which reviews and extends the material taught in MAT 011. It is appropriate for students who have taken MAT 011 or who have had an elementary algebra course in high school. It will prepare students for MAT 125, MAT 131, MAT 140, and/or MAT 161. Topics include a brief review of introductory algebra, factoring, algebraic fractions, radicals, fractional exponents, the Pythagorean Theorem, function notation, graphing, quadratic equations, logarithms, systems of linear equations, and word problem applications. A graphics calculator is required for class, homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

Prerequisites: Math placement test recommendation of "UND 116" (under MAT 116) or MAT 011 / 011b, with a minimum grade of "C."

MAT 100B INTERMEDIATE ALGEBRA WITH REVIEW... 3-3-0

An intermediate algebra course which reviews and extends the topics from a beginning algebra or algebra I course. It is appropriate for students who had algebra I in high school but are not prepared for MAT 100, Intermediate Algebra. MAT 100B is an alternative to the sequence MAT 011, MAT 100. MAT 100B covers the same topics as MAT100 by meeting 4 hours a week for 3 credits. It is important to note that the students will pay for four hours, but only receive three credits. It will prepare students for MAT 115, MAT 125, MAT 131, MAT 140 and/or

MAT 161. Topics include a review of introductory algebra, introduction of functions, factoring, algebraic fractions, radicals, fractional exponents, the Pythagorean Theorem, function notation, graphing, quadratic equations, logarithms, systems of linear equations, and word problem applications. A graphing calculator is required. Instruction will be presented using a TI-84.

Prerequisites: Students must have successfully completed or tested out of: Math placement test recommendation of "MAT 100B"

MAT 103 FOUNDATIONS OF MATHEMATICS I 3-3-0

This course is to give students an understanding of the foundations of math for Elementary Education students. Topics include sets, logic, number bases and the structure of the number system from naturals to the reals. This course does not satisfy the MAT 100 Prerequisites requirement for MAT 125, MAT 131, MAT 140, or MAT 161.

(Core Goals 2 and 3)

Prerequisites: Math placement test recommendation of "UND 116" (under MAT 116) or ABV 100 (above MAT100) or MAT 011/011b, with a minimum grade of "C."

Note: Check with a counselor regarding transfer equivalency.

MAT 104 FOUNDATION OF MATHEMATICS II 3-3-0

This is the second course in the sequence MAT 103, MAT 104. Topics include geometry, measurement, probability, statistics and problem solving. This course does not satisfy the MAT 100 Prerequisites requirement for MAT 125, MAT 140 or MAT 161.

Prerequisites: MAT 103 with a minimum grade of "C"

MAT 106 MATH APPLICATIONS 3-3-0

This course is designed for liberal arts, social science, humanities, secondary education, and communications majors. It stresses mathematical applications from probability, statistics, math of finance, linear programming and at least one of the following topics: matrix algebra, game theory, graph theory, or an introduction to technology. A calculator is required for this course: see instructor. This course does not satisfy the MAT 100 Prerequisites requirement for MAT 125, MAT 140 or MAT 161. Students taking an on line section (YO) of MAT 106 will need to submit materials by fax or as an attachment in email. Graphs may need to be faxed. Course materials will be presented in an electronic format.

(Core Goals 2 and 3)

Prerequisites: Math placement test recommendation "UND 116" (under MAT116) or "ABV 100" (above MAT 100) or MAT 011/011b , with a minimum grade of "C."

MAT 108 MATHEMATICS CULTURE AND CONCEPT..... 3-3-0

A course, designed primarily for liberal arts students, which shows how mathematics has developed concomitantly with civilization. The applications demonstrate that mathematics is related not only to the physical sciences but also to the social sciences, to philosophy, logic, religion, literature and the arts. This course does not satisfy the MAT 100 Prerequisites requirement for MAT 125, MAT 131, MAT 140 or MAT 161.

Prerequisites: Math placement test recommendation "UND 116" (under MAT 116) or "ABV 100" (above MAT 100) or MAT 011/011b, with a minimum grade of "C."

MAT 115 APPLIED ALGEBRA/TRIGONOMETRY I. 4-4-0

An introductory level mathematics course designed to provide a strong mathematical base for technical work that involves measurements, conversions, and related computation. The course covers right angle geometry, algebra, trigonometry, exponents, graphing, and the applications of these to various technological areas. The use of calculators and computers is integrated with traditional methods of problem solving. A graphing calculator is required for class, homework

and testing. Classroom instruction and programs will be presented using a graphing calculator.

Prerequisites: Math placement test recommendation "UND 116" (under MAT 116) or "ABV 100" (above MAT 100) or MAT 011/011b, with a minimum grade of "C."

MAT 116 APPLIED ALGEBRA/TRIGONOMETRY II. 4-4-0

A continuation of MAT 115 with emphasis on algebra and trigonometry along with their application to the technical field. Topics will include complex numbers, graphs of trigonometric functions, vectors and oblique triangles, rational and irrational roots, matrices, and topics involving analytical geometry. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a graphing calculator.

Prerequisite: MAT 115 with a minimum grade of "C."

MAT 117 APPLIED CALCULUS 4-4-0

A first course in technical calculus. Topics include limits, differentiation and integration of algebraic and transcendental functions. Methods include curve sketching, maximum and minimum problems, curvilinear motion related rates, and Simpson's Rule. Numerous applications from many fields of technology are included, to indicate where and how math is used in technical fields. A computer component is integrated into the course. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a graphing calculator.

Prerequisite: MAT 116 with a minimum grade of "C."

MAT 125 DISCRETE MATHEMATICS 3-3-0

A course in discrete mathematics with special emphasis on computer science applications. Topics include sets, number systems, the nature of proof, formal logic, functions and relations, combinatorics, recurrence relations, trees and Boolean algebra.

Prerequisites: CIS 111 with minimum grade of "C," MAT 100 or MAT 100b, with minimum grade of "C" or math placement test recommendation of "ABV 100".

MAT 131 INTRODUCTION TO STATISTICS I 3-3-0

A basic course designed for students in all fields. Topics include organization of data, measures of central tendency, measures of variation, statistical inference and correlation. This is a self-contained course, or with MAT 132, it is a course with greater depth and applications. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

(Core Goals 2 and 3)

Prerequisites: Students must have successfully completed or tested out of: Math placement test recommendation of "ABV 100" (above MAT 100) or MAT 100, MAT 100b, MAT 104 or MAT 106 with a minimum grade of "C".

MAT 132 INTRODUCTION TO STATISTICS II 3-3-0

A continuation of MAT 131 with business applications including statistical inference and decision procedures, regression, correlation, chi-square distribution, time series, quality control, and index numbers. A graphing calculator is required for classes, homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

Prerequisites: MAT 131, with minimum grade of "C"

MAT 140 FINITE MATHEMATICS FOR BUSINESS 3-3-0

A course in finite mathematics with special emphasis on applications to business and related fields. Topics include linear and quadratic equations with applications involving supply, demand, revenue, cost, profit and breakeven points; matrices and systems of linear equations; graphing; linear programming; simplex method; mathematics of finance; and model building. A graphing calculator is required for classes,

homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

(Core Goals 2 and 3)

Prerequisites: Math placement test recommendation of "ABV 100" above MAT100 or MAT 100, with a minimum grade of "C."

MAT 142 CALCULUS FOR BUSINESS & SOCIAL SCIENCE 3-3-0

A one semester calculus course containing an introduction to differential and integral calculus using algebraic, exponential and logarithmic functions. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI 84 Plus.

Prerequisite: MAT 140 with a minimum grade of "C," or consent of instructor.

MAT 161 PRECALCULUS I4-4-0

A comprehensive precalculus course which extends the material taught in MAT 100. Additional topics include: quadratic and absolute value, inequalities, binomial theorem, sigma notation, conic sections, theory of equations, complex numbers, and systems of equations. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

Prerequisite: Math placement test – Level 2 recommendation, or MAT 100 with a minimum grade of "C"

MAT 162 PRECALCULUS II 4-4-0

A continuation of MAT 161 including the following topics exponential and logarithmic functions. Trigonometry including: right triangles, functions, graphs, identities, vectors, law of sines, law of cosines, polar coordinates and polar graphing, complex numbers, inverse functions and applications. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

Prerequisite: MAT 161 with a minimum grade of a "C."

MAT 170 ALGEBRA AND TRIGONOMETRY 4-4-0

A course to precede the calculus sequence. The topics include polynomial, trigonometric, and logarithmic functions, the binomial theorem, complex numbers, polar graphing. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a graphing calculator..

Prerequisites: Math placement test level 2 recommendation.

Note: MAT 170 is a very fast-paced course that should only be taken as a review by students who have a strong high school background in both algebra and trigonometry. This course should not be taken by students who have had MAT 161 and 162 which together form its equivalent. In addition, students who have just completed MAT 100 should not take this course.

MAT 188 CALCULUS WITH A REVIEW OF FUNCTIONS I 4-4-0

A course primarily designed for students who will major in mathematics, science, engineering, or business. The sequence of courses, MAT 188 and MAT 189, is designed for students who have a good background in functions and trigonometry. MAT 188 and MAT 189 cover similar topics as the sequence MAT 161, MAT 162, and MAT 190 but at a faster pace. Together with MAT 189 the course covers all of the material in MAT 190, Calculus I. MAT 188 covers inequalities, Fundamental Theorem of Algebra, basic trigonometry, Law of Sines and Cosines, limits, differentiation, integration, curve sketching and applications for polynomials and trigonometric functions. A graphing calculator is required for class, homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

(In combination with MAT 189 Core Goals 2 and 3)

Note:: You must pass both MAT 188 and MAT 189 to transfer credits equivalent to Calculus I. You should not take MAT 188 unless you are planning on taking MAT 189 the next semester.

Prerequisites: MAT100 or MAT100B with a B or better and high school trigonometry or permission of instructor, or Math placement "ABOVEMAT 116" and high school trigonometry or permission of instructor, or MAT116 with a C or better.

MAT 189 CALCULUS WITH A REVIEW OF FUNCTIONS II4-4-0

This course is a continuation of MAT 188. This course completes the coverage of Calculus I, MAT 190. MAT 189 covers limits, differentiation, integration curve sketching and applications for rational and radical functions. Also covered is an introduction to logarithms, exponential functions, and conic sections. The course concludes with a summary of Calculus I. A graphing calculator is required for class, homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus. (In combination with MAT 188 Core Goals 2 and 3)

Prerequisites: MAT 188 with a minimum grade of "C".

MAT 190 CALCULUS AND ANALYTIC GEOMETRY I4-4-0

A course designed primarily for students who will major in mathematics, science, engineering, or business. Topics include concepts from analytic geometry, limits, differentiation and integration of algebraic and trigonometric functions, curve sketching and applications. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.

(Core Goals 2 and 3)

Prerequisites: Math placement test level 2 recommendation or MAT 161 and MAT 162, or MAT 170 with a minimum grade of "C."

MAT 199 INDEPENDENT STUDY IN MATHEMATICS 1-4-0

MAT 201 CALCULUS AND ANALYTIC GEOMETRY II 4-4-0

This is the second course in the calculus sequence. It is designed primarily for students who will major in mathematics, science, engineering or business. Topics include differentiation and integration of exponential, logarithmic, trigonometric, and hyperbolic functions, integration techniques, improper integrals, sequences and series, Taylor's formula, L'Hopital's rule and applications. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a graphing calculator.

Prerequisite: MAT 190 with a minimum grade of "C."

MAT 202 CALCULUS AND ANALYTIC GEOMETRY III 4-4-0

This is the third course in the Calculus sequence. It is designed primarily for students who will major in mathematics, science, engineering or business. Topics include polar coordinates, vector analysis, solid analytic geometry, partial derivatives and multiple integrals with applications. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-92/Voyage 200.

Prerequisite: MAT 201 with a minimum grade of "C."

MAT 211 FOUNDATIONS OF MATHEMATICAL PROOF 3-3-0

This course is designed to introduce students to the foundations of higher mathematics, which includes an introduction to mathematical abstraction and an introduction to the language of mathematical proof. Topics include: logic; the use of quantifiers to assist with logic; set theory; applying appropriate proof techniques; relations and functions, including the Cartesian product and its applications. This course is highly recommended for those students who have not been exposed to mathematical proof and intend to take advanced math courses.

Prerequisite: MAT 190 with a minimum grade of "C."

MAT 220 LINEAR ALGEBRA WITH APPLICATIONS 4-4-0

A one-semester course in linear algebra. Topics include vector spaces, matrices and linear transformations, Eigenvalues and eigenvectors, determinants, function spaces and applications. It can be taken concurrently with MAT 202 or MAT 223. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-92/Voyage 200.

Prerequisite: MAT 201 with a minimum grade of "C."

MAT 223 DIFFERENTIAL EQUATIONS 4-4-0

A course primarily in ordinary differential equations and related topics. Topics include differential equations of the first order, linear differential equations of higher orders, systems of differential equations, Laplace Transforms, numerical methods and applications. It can be taken concurrently with MAT 202 or MAT 220. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-92/Voyage 200.

Prerequisite: MAT 201 with minimum grade of "C".

MAT 299 INDEPENDENT STUDY IN MATHEMATICS1-4-0

MEDICAL ASSISTING

MAS 110 LABORATORY PROCEDURES FOR MEDICAL ASSISTANTS 4-3-2

This comprehensive course introduces the student to the purpose, techniques and recording of diagnostic laboratory procedures commonly performed in the medical office. Subjects covered include general laboratory techniques, phlebotomy, specimen collection, handling and processing, diagnostic testing and performing hematology, chemistry, microbiology and immunology testing. Course specific competency evaluations must be successfully completed by the student.

Pre-requisites: Students must have completed or successfully tested out of MAT 010, ENG 011 and REA 011

Co-requisite: BIO 103, HCP 224

MAS 112 MEDICAL ASSISTING-CLINICAL ASSISTING PROCEDURES .. 5-4-2

The course builds a solid foundation in Medical Assisting and introduces students to the clinical procedures commonly performed in a medical office. This course explores anatomy and physiology, medical terminology, common pathology and diseases, diagnostic treatment modalities, infection control practices, and patient care techniques. Course specific competency evaluations must be successfully completed by the student.

Pre-requisites: Students must have completed or successfully tested out of MAT 010, ENG 011 and REA 011

Co-Requiree: BIO 103, HCP 224

MAS 114 MEDICAL LAW AND ETHICS FOR HEALTH CARE PROFESSIONALS 3-3-0

This course provides the student with a deeper understanding of legal and ethical issues in healthcare. Students explore the legal, ethical and moral dilemmas currently faced by healthcare professionals, and identify issues related to potential legal liability in the workplace.

(Also offered as HCP 114.)

(Core Goal 13)

MAS 116 MEDICAL BUSINESS PRACTICES 4-3-2

The course builds a solid foundation in Medical Office Administrative Assisting and introduces students to the administrative procedures and business practices commonly performed in medical business practices.

Emphasis on medical ethics, communication skills, operational functions and workplace dynamics will help prepare the student for entry level office management. Course specific competency evaluations must be successfully completed by the student. (Also offered as HCP 116.)

Pre-requisites: Students must have completed or successfully tested out of MAT 010, ENG 011 and REA 011

MAS 120 PROFESSIONAL ISSUES IN MEDICAL ASSISTING 1-1-0

This course explores professional development issues essential for Medical Assistants. It prepares graduates to value life-long learning, problem solving, critical thinking and interpersonal communication as means of achieving personal and professional growth. Students prepare for job interviews, write a resume and explore career advancement skills.

Prerequisites: Completion of the Medical Assisting Admission Guidelines and admission to the Medical Assisting Program, MAS 110, MAS 112, HCP/MAS 114, and HCP/MAS 116.

MAS 130 MEDICAL ASSISTING PRACTICUM 5-2-12

This capstone course will serve as the culminating point in preparing for the transition from student to practicing Medical Assistant by providing the student with the opportunity to apply the skills learned in the classroom and laboratory to medical assisting practice in the medical office. This important part of the student's total education includes an opportunity to perform various clinical and administrative procedures at the practicum site. These experiences are then shared in the classroom seminar setting. Students must complete a capstone project and course-specific evaluations.

Prerequisites: Completion of the Medical Assisting Admission Guidelines and admission to the Medical Assisting Program, MAS 110, MAS 112, HCP/MAS 114, and HCP/MAS 116.

Co-requisites: MAS 120 - Professional Issues in Medical Assisting

MEDICAL LABORATORY TECHNICIAN

MLT 106 PHLEBOTOMY 4-2-8

A comprehensive one-semester course in the fundamentals and practice of phlebotomy (blood specimen collection). Lecture topics covered include venipuncture, capillary collection, safety, medical terminology, orientation to the clinical laboratory and health care, and specimen handling and processing. Students spend 100 hours in a hospital laboratory practicing blood collection techniques under supervision. Upon successful completion of the course, students are eligible to sit for national certification exams and to seek employment as phlebotomists. Additionally students are trained in adult Cardiopulmonary Resuscitation (CPR).

Prerequisite: High School Diploma or GED.

MLT 110 INTRODUCTION FOR THE MEDICAL LABORATORY TECHNICIAN..... 4-2-6

This course introduces the student to varied aspects of Medical Laboratory Technician careers. The course is a combination of classroom and laboratory experiences. Subjects covered include general laboratory techniques, safety, professional issues, an introduction to the role of computers in the laboratory setting, and some basic concepts and analyses from each of the major areas of the medical laboratory.

Prerequisites: Attainment of Medical Laboratory Technician Selective Admissions Criteria and Admission into the Program. Successfully complete or test out of MAT 011 with a grade of "C" or better.

MLT 123 IMMUNOHEMATOLOGY LECTURE 2-2-0

Comprehensive course in fundamentals of theory and practice in blood banking, including blood group systems, antibody detection and identification, compatibility testing, donor selection and processing, component therapy, and transfusion reactions.

Prerequisite: MLT 110 with a grade of "C" or better.

MLT 124 IMMUNOHEMATOLOGY LABORATORY 1-0-3

The student develops proficiency in basic laboratory procedures for the blood bank, including specimen collection and handling, blood typing, neonatal testing, antibody screening and identification and compatibility testing.

Prerequisite: MLT 110 with a grade of "C" or better.

MLT 125 HEMATOLOGY LECTURE 2-2-0

Comprehensive course in the fundamentals of theory and practice in clinical hematology and hemostasis, including hematopoiesis of red and white cells, cell function, correlation of test results with pathophysiology, and the principles of routine analyses and instrumentation.

Prerequisites: MLT 110, BIO 130, and CHE 131, each with a grade of "C" or better.

MLT 126 HEMATOLOGY LABORATORY 1-0-3

The student develops proficiency in basic laboratory procedures in hematology and hemostasis, including complete blood counts, platelet counts, differentials, basic coagulation tests, cell counts and specimen collection and handling. Instrumentation is introduced.

Prerequisites: MLT 110, BIO 130, and CHE 131, each with a grade of "C" or better.

MLT 233 CLINICAL CHEMISTRY LECTURE 3-3-0

Comprehensive course emphasizing the principles and procedures of routine clinical chemistry analyses, including instrumentation, correlation of results with pathophysiology, quality control, toxicology and urinalysis.

Prerequisites: MLT 110, BIO 130, CHE 132, each with a grade of "C" or better.

MLT 234 CLINICAL CHEMISTRY LABORATORY 2-0-6

The student develops proficiency in basic laboratory analyses in chemistry (including urinalysis and body fluids). Emphasis is on frequently performed tests, spectrophotometry, manual procedures, developing organizational skills and quality control. Instrumentation is introduced.

Prerequisites: MLT 110, BIO 130, CHE 132, each with a grade of "C" or better.

MLT 235 CLINICAL PRACTICUM IN MLT I..... 3-0-12

The student applies basic skills learned on campus to three clinical areas: blood bank; hematology and microbiology. Students spend 12 hours per week for 4 weeks in each clinical area at an off-campus clinical site, performing routine tests under supervision.

Prerequisites: MLT 123, MLT 124, MLT 125, MLT 126, and BIO 141, each with a grade of "C" or better.

MLT 244 PROFESSIONAL ISSUES IN MEDICAL LABORATORY TECHNOLOGY .. 2-2-0

This course is designed for the second year clinical MLT student. It is intended to introduce the student to non-clinical MLT related issues. It explores topics such as health care delivery systems, managed care approaches to reimbursement issues, health care finance, laboratory information systems, professional communication skills, professional documentation and legal-ethical questions. The student explores some of the many challenges facing the MLT profession.

Prerequisites: MLT235

Co-requisites: MLT245 or permission from the Program Director.

MLT 245 CLINICAL PRACTICUM IN MLT II .. 6-0-24

This course is a structured practical experience at a clinical site. The student spends 24 hours per week for three weeks at an off-campus laboratory in each of the following areas: blood bank, hematology/coagulation/ urinalysis, microbiology/serology, and chemistry. Emphasis is on supervised performance of routine tests, efficiency, operation of instrumentation and development of professional traits. The student will participate on a blood collection team and tour several off-campus enrichment sites.

Prerequisites: MLT 233, MLT 234, MLT 235, and BIO 241, each with a grade of "C" or better.

MLT 246 MLT SEMINAR1-1-0

A capstone course with a variety of formats covering topics such as professional issues and job-seeking skills. The student will make oral case study presentations and participate in a group project.

Prerequisites: MLT233, MLT 234, MLT 235, and BIO 241, each with a grade of "C" or better.

MUSIC

MUS 110 MUSIC APPRECIATION 3-3-0

Music Appreciation is a chronological survey of Western music from classical antiquity through the 20th century. Throughout the course, music will be examined for its own intrinsic characteristics in addition to being used as a means for achieving a greater understanding of the society, politics, philosophies, and aesthetics of each historical period. Whenever possible, relationships between the music of Western culture and the music of other world cultures will be examined. In addition to the in-class activities, every student will be required to attend a live concert (approved by the instructor) and, following specific guidelines, prepare a written review of that concert experience.

(Core Goals 5, 6 and 7)

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 111 POPULAR MUSIC IN AMERICA . 3-3-0

This course will explore the origins and development of popular music in America, from ragtime and blues, through rockabilly and the British invasion, to punk, rap, and heavy metal. Students will gain an understanding of a variety of popular styles and artists, as well as discover how popular music reflected and influenced the changing social and cultural norms of America. In addition to the in-class activities and assessments, every student will be required to write a research paper on a specific topic related to the course (approved by the instructor).

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 112 AFRICAN-AMERICAN TRADITIONS IN AMERICAN MUSIC 3-3-0

African-American Traditions in American Music is an introductory survey of the history of African-American music in the United States. Consideration will be given to the music's origins and practice in West Africa; the relationship of the music's evolution to the major tradition in western music; and examination of the religious, social, political and economic forces which helped to shape the music; and representative musical forms in specific genre of American music.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, and REA 011, or REA 017.

MUS 113 MUSIC IN AMERICAN CULTURE 3-3-0

Music in American Culture will examine various styles of music found in United States cultural history. Folk, fine art, and popular music examples drawn from diverse traditions will be examined on the basis of their intrinsic characteristics, as well as in connection with their social, economic, and political contexts.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 114 INTRO TO WORLD MUSIC CULTURES 3-3-0

Introduction to World Music Cultures is an entry-level course in the study of World Music. These musical traditions will be explored both based on their intrinsic characteristics, as well as in connection with their social, economic, and political contexts. Students will also be introduced to the discipline of Ethnomusicology. As a term project, each student will be required to visit and document a local musical culture selected by the student and approved by the instructor.

Prerequisites: Students must have passed or tested beyond ESL 011, ENG 011, and REA 011.

MUS 120 MUSIC FUNDAMENTALS . 3-3-0

A study of music fundamentals for those with little or no musical background. Sight singing and elementary ear training skills will be developed, as well as a knowledge of notation, intervals, rhythm, melody, and harmony.

Prerequisites: Place into ENG 010 or ESL 010 or complete ESL 006. Place into "UNDER 116" or complete MAT 011 or above. Place into REA 101 or complete REA 011 or above.

MUS 133 COLLEGE CHOIR I 3-3-0

A performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. No previous musical training is required, although it is helpful.

MUS 134 COLLEGE CHOIR II 3-3-0

A performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. No previous musical training is required, although it is helpful.

MUS 135 COLLEGE CHOIR III 3-3-0

A performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. No previous musical training is required, although it is helpful.

MUS 136 COLLEGE CHOIR IV 3-3-0

A performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. No previous musical training is required, although it is helpful.

MUS 140 INTRODUCTION TO DIGITAL MUSIC TECHNOLOGY3-3-0

Introduction to Digital Music Technology is an entry-level course in modern music production. Students will study the nature of musical sound and the relationship between digital and analog sound processing. Students will also receive an introduction to the basics of MIDI, the fundamental computer music language. Through hands-on projects, students will learn about the various tools of modern audio production with an emphasis on digital tools including synthesizers, midi controllers, sequencers, mixers, effects generators and more.

(Core Goal 7)

Prerequisite: MUS 120 with a "C" or better, or permission of the department.

MUS 141 INTERMEDIATE DIGITAL MUSIC.....3-3-0

This course is a continuation of studies begun in MUS 140 and will focus on Music Technology, Music Composition, and their application to multimedia. Students learn how to score for film, synchronize multimedia and create a resulting DVD of their own design. The second large project will introduce the student to the creation of an interactive object computer programming language called MAX. The student will learn to create an application that will run MIDI and Digital Audio Files in real time. No previous computer programming experience is required.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011, and MUS 140 or permission of the instructor.

MUS 146 PRINCIPLES OF PRIVATE MUSIC INSTRUCTION.....3-3-0

This course will explore the process of successfully developing and maintaining an independent applied music studio. Students will explore both the pedagogical and entrepreneurial aspects of the private instruction business, applicable to both instrumental and voice disciplines. Concepts discussed will include aesthetic analysis of student performances, teaching methods, learning styles, curriculum, studio technology, professional associations, policies, resume-writing, and business practices.

(Core Goal 7)

Prerequisite(s): Students must have successfully completed or tested out of ENG 011 or ESL 011.

Students must have successfully completed or tested out of REA 011 or REA 017

Students must have successfully completed or tested out of MAT 011

MUS 150 GUITAR CLASS 1 1-1-2

Guitar Class 1 is a course designed to establish a basic understanding of the guitar as an accompanying and solo instrument. This course will enhance pre-existing skills on the guitar, while providing essential rudiments for those who enroll as beginners. Students will learn or improve their knowledge of standard musical notation as it applies to guitar repertory. Students will be introduced to the fundamental techniques of guitar playing, including strumming and finger-style techniques. Through repertory study and a research project, students will also learn about the history and repertory of the guitar within both western and other cultures.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 151 GUITAR CLASS 2 1-1-2

Guitar Class 2 is a course designed to continue to develop skills introduced in Guitar Class 1. The course is also open to students who can demonstrate fluency with the guitar comparable to that achieved in Guitar Class 1. Students will expand their knowledge of standard musical notation as it applies to guitar repertory. Students will be introduced to the more advanced techniques of guitar playing, including strumming and finger-style techniques. Through repertory study and a research project, students will also learn about the history and repertory of the guitar within both western and other cultures.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011. MUS 150 with a "C" or better, or permission of the instructor.

MUS 152 COMMERCIAL AND JAZZ GUITAR STUDIES 1-1-2

The purpose of this course is to further develop the skills students have acquired on their own or in Guitar I class. This course will introduce intermediate techniques focusing on plectrum style guitar playing in the Jazz/Commercial genres. Students will develop the necessary skills to function as a guitarist by learning to 1) play a variety of accompaniment

styles, 2) improvise using scales and arpeggio patterns combined with a knowledge of chord-scale relationships, 3) read chord charts and melody lines and 4) perform a continually expanding repertoire.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011. MUS 150 with a "C" or better, or permission of the instructor.

MUS 160-163 JAZZ LAB BAND I, II, III, IV 1-0-3

Jazz Lab Band I, II, III, and IV are elective courses in musical performance open to players of woodwinds, brass, keyboard, guitar, bass, and percussion. Students will develop basic foundation skills as jazz soloists and ensemble players. Repertoire will vary each semester based on the strengths, weaknesses, and pedagogical needs of the ensemble. Students will be required to provide their own instrument (a standard drum set, bass and guitar amplifier, keyboard, and keyboard amplifier will be provided). This course is open to all students who possess a basic ability to play their instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw.

Prerequisites: Students should have basic performance ability on their instrument and a basic ability to read music. The instructor will evaluate each student's preparedness in the first week of classes. Prior Jazz experience is helpful but not required.

MUS 170 PIANO CLASS 1 1-1-2

The first in a series of four classes designed to give students a complete orientation to keyboard skills. Piano Class 1 is ideal for those with little or no previous piano study. Students may begin their studies in higher level classes if they pass the prescribed proficiency test. To provide for the proper level of individual attention, the class size will be limited to 16.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, MAT 011, REA 017, and REA 011.

MUS 171 PIANO CLASS 2 1-1-2

The second in a series of four classes designed to give students a complete orientation to keyboard skills. Students can begin with Piano Class 2 if they pass the level 1 proficiency test. To provide for the proper level of individual attention, the class size will be limited to 16.

Prerequisites: and MUS 170 or success on the Level 1 proficiency exam.

MUS 172 PIANO CLASS 3 1-1-2

The third in a series of four classes designed to give students a complete orientation to keyboard skills. Students can begin with Piano Class 3 if they pass the level 2 proficiency test. To provide for the proper level of individual attention, the class size will be limited to 16.

Prerequisites: MUS 171 or success on the Level 2 proficiency exam.

MUS 173 PIANO CLASS 4 1-1-2

The last in a series of four classes designed to give students a complete orientation to keyboard skills. Students can begin with Piano Class 4 if they pass the level 3 proficiency test. To provide for the proper level of individual attention, the class size will be limited to 16.

Prerequisites: MUS 172 or success on the Level 3 proficiency exam.

MUS 180 APPLIED MUSIC LESSONS 1.....1-0-3

Through this course, credit is earned for private instruction on the students chosen instrument or voice. The student registers for lessons through the Continuing Education division of the college. Lessons are generally available for Piano, Voice, Guitar, and various band and orchestral instruments. Check with the department for current availability. After completing the semester of lessons, the student earns credit through the completion of the college Credit By Examination process. Open by permission of the individual instructor.

MUS 181 APPLIED MUSIC LESSONS 2 1-0-3

Through this course, credit is earned for private instruction on the students chosen instrument or voice. The student registers for lessons through the Continuing Education division of the college. Lessons are generally available for Piano, Voice, Guitar, and various band and orchestral instruments. Check with the department for current availability. After completing the semester of lessons, the student earns credit through the completion of the college Credit By Examination process. Open by permission of the individual instructor.

Prerequisite: MUS 180

MUS 190 - 193 CHAMBER STRINGS I, II, III, IV 1-0-3

Chamber Strings I, II, III, IV are performance courses for students who want the opportunity to participate in an orchestral strings setting. The course focuses on developing technique and breadth of repertoire for string (violin, viola, cello, bass) students. This course is open to all students who possess a basic ability to play an instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw.

Prerequisite: Each course requires the previous course in the sequence

MUS 194-197 WIND ENSEMBLE I, II, III, IV 1-0-3

Wind Ensemble I, II, III, IV are performance courses for students who want the opportunity to participate in a symphonic band setting. The course focuses on developing techniques and breadth of repertoire for flute, oboe clarinet, bassoon, saxophone, trumpet, trombone, French horn, and tuba. This course is open to all students who possess a basic ability to play an instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw.

Prerequisite: Each course requires the previous course in the sequence.

MUS 210 JAZZ HISTORY 3-3-0

Jazz History will explore the history and recordings of American Jazz beginning with the roots of Jazz during the 1800's and progressing to the Hard Bob, Free Jazz, Avant Garde, and Fusion styles of today. The course is designed for the student with some musical background. Students will explore Jazz within its cultural and historical contexts, in addition to learning the basics of jazz theory and analysis. Learn how American History shaped this musical art form that was born in the United States. Students will have the opportunity to see and hear legendary jazz artists such as Louis Armstrong, Benny Goodman, Count Basie, Duke Ellington, Charlie Parker, Dizzy Gillespie, Miles Davis, Thelonious Monk, John Coltrane, and many, many more!

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 211 WESTERN MUSIC HISTORY 1: FROM MEDIEVAL TO RENAISSANCE 3-3-0

An exploration of the music and culture of Western civilization from ancient times to the Renaissance. Students will study both the sacred and secular music of the medieval and renaissance periods, including (but not limited to) Gregorian chant, Troubadour songs, Madrigals, Motets, Masses, and instrumental music. Each musical genre will be examined on the basis of its intrinsic characteristics as well as in connection with the aesthetic, social, philosophical, political, and economic environment in which it was created. Students will be expected to have a basic understanding of standard musical notation. MUS 120 (Fundamentals) is recommended but not required.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 212 WESTERN MUSIC HISTORY 2:

THE BAROQUE: FROM MONTEVERDI TO BACH 3-3-0

An exploration of the music and culture of Western civilization from the late 16th Century to the mid 18th Century. Students will study both the sacred and secular music of the late renaissance and baroque periods, including (but not limited to) the late renaissance madrigal, the Venetian polychoral tradition, monody, opera, oratorio, cantata, suite, sonata, and concerto. Each musical genre will be examined on the basis of its intrinsic characteristics as well as in connection with the aesthetic, social, philosophical, political, and economic environment in which it was created. Students will be expected to have a basic understanding of standard musical notation. MUS 120 (Fundamentals) is recommended but not required.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 213 WESTERN MUSIC HISTORY 3:

THE CLASSICAL AND EARLY ROMANTIC ERAS: FROM BACH TO BEETHOVEN AND BEYOND..... 3-3-0

An exploration of the music and culture of Western civilization from the mid 18th Century to the early 19th Century. Students will study both the sacred and secular music of the classical and early romantic eras, including (but not limited to) opera, church music, symphony, sonata, concerto, and chamber music. The music and careers of Haydn, Mozart, Beethoven, Schubert, Berlioz, and others will be examined in some detail. Each musical genre will be examined on the basis of its intrinsic characteristics as well as in connection with the aesthetic, social, philosophical, political, and economic environment in which it was created. Students will be expected to have a basic understanding of standard musical notation. MUS 120 (Fundamentals) is recommended but not required.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 214 WESTERN MUSIC HISTORY 4:

THE LATE 19TH AND THE 20TH CENTURY 3-3-0

An exploration of the music and culture of Western civilization of the late 19th and 20th centuries.. Students will study both the sacred and secular music of these periods, including the intersections between the Western classical tradition, World music and Popular music, especially jazz. Works will be examined on the basis of its intrinsic characteristics as well as in connection with the aesthetic, social, philosophical, political, and economic environment in which it was created. Students will be expected to have a basic understanding of standard musical notation. MUS 120 (Fundamentals) is recommended but not required.

Prerequisites: Students must have successfully completed or tested out of ESL 011, ENG 011, REA 017, and REA 011.

MUS 221 MUSIC THEORY 1 3-3-0

For students with some musical background who wish to expand their understanding of music theory. Emphasis will be on the study of Western music harmonic practices of the 18th and 19th centuries. The course will concentrate on musical analysis (melodic, harmonic and formal) and creative application of the concepts studied. Throughout the course, both technical and aesthetic considerations will be given equal attention. Students will also research a composer of choice from the above-mentioned time period and prepare a properly documented presentation on that composer's life and musical style. A working knowledge of musical symbols and notation is required.

(Core Goals 2 and 7)

Prerequisite: MUS 120 with a C or better, or permission of the coordinator.

MUS 222 MUSIC THEORY 2 3-3-0

Directed to students with previous experience in musical analysis (phrase/chord identification) and harmony (four-voice/keyboard style). This course will focus on melody harmonization, form and analysis, modal harmony, modulation. An introduction to instrumentation and composition will be included.

Prerequisites: MUS 221 or permission of the Music coordinator.

MUS 231 AURAL THEORY 1 ... 3-3-0

Aural Theory 1 is for students with some musical background who wish to develop their ear training and musicianship skills. The course is designed to prepare students to be successful as music or music education majors, or to hone musicianship skills for non-majors. Individual and group classroom activities and computer-assisted drills will be used to develop the student's aural skills with rhythmic, melodic, and harmonic materials. A working knowledge of musical symbols and notation is required. Students are encouraged to enroll simultaneously in MUS 221 (Music Theory 1).

Prerequisites: MUS 120 with a "C" or better, or permission of the Music coordinator.

MUS 232 AURAL THEORY 2 3-3-0

Aural Theory 2 is for students who wish to continue developing their ear training and musicianship skills. The course is designed to prepare students to be successful as music or music education majors, or to hone musicianship skills for non-majors. Individual and group classroom activities and computer-assisted drills will be used to develop the student's aural skills with rhythmic, melodic, and harmonic materials. Previous experience in sight singing and dictation is required. Students are encouraged to enroll simultaneously in MUS 222 (Music Theory 2).

Prerequisite: MUS 231 with a "C" or better, or permission of the Music coordinator.

MUS 233-236 CHAMBER CHOIR I, II, III, IV. 1-0-3

Chamber Choir I, II, III & IV are performance courses for students who want an opportunity to participate in a small chamber style ensemble. The group will explore repertory from a wide range of stylistic periods. This ensemble is open by permission of the instructor only, normally by audition. Students must also be registered in the College Choir.

Prerequisites: Permission of the instructor (audition required.)

MUS 240 THE ART AND BUSINESS OF SONGWRITING .. 3-3-0

The Art and Business of Songwriting is an elective course which teaches the art of musical composition with an emphasis on the genre of contemporary song. It is designed for the student with some knowledge of or background in the basics of music who wishes to apply that knowledge to the creation of music in contemporary popular genres. Students will explore the various musical forms employed by songwriters and apply them to their own compositional projects. The course provides an overview of the historical development of the art of popular song in Western culture, exploring in particular the significant contributions made by America's immigrant and African-American populations. Students will also examine the business of songwriting and its place in the overall music industry.

Prerequisite: MUS 120 with a C or better, or permission of the department.

MUS 241 THE BUSINESS OF MUSIC..... 3-3-0

Course will provide students with an overview of the current state of the Music Industry. Students will also acquire a set of skills needed to pursue a career in that industry. Topics covered will include music business career opportunities, marketing concepts, management skills and promotion. Throughout the semester, the students will explore various professions in the music field and receive an introduction to music publishing, concert production and touring, management,

merchandising and recording, public relations, radio promotion, brick and mortar and internet distribution, merchandising, multimedia advertising, and budgeting.

Prerequisites: Students must have successfully completed or tested out of ENG 011, ESL 011, REA 017, REA 011, and MAT 011. Recommended but not required: MUS 140 and/or MUS 240.

MUS 260-263 PERFORMANCE JAZZ ENSEMBLE I, II, III, IV 1-0-3

Performance Jazz Ensemble I,II, III, IV are intermediate-level courses in Jazz performance open to experienced players of saxophone (alto, tenor, and baritone), trumpet, trombone, keyboard, guitar, bass, and drums. Enrollment in these classes is by audition only. Students will be expected to have significant performance experience on their instrument and some experience playing within a jazz ensemble. Students will develop skills as soloists through individual practice, ensemble practice, and performances. As the lead Jazz ensemble at the college, this ensemble will be expected to participate in a variety of public service events throughout the semester. Repertoire will vary, but will include Jazz Standards, Blues (both major and minor), tunes based on rhythm changes, and student jazz compositions/arrangements. Students will be required to provide their own instrument (a standard drum set, bass, and guitar amplifier, keyboard, and keyboard amplifier will be provided.) (Core Goal 7)

Prerequisite: Each course requires the previous course in the sequence.

MUS 299 INDEPENDENT STUDY IN MUSIC.3-0-6

NANOFABRICATION

***ESC 211 MATERIAL, SAFETY AND EQUIPMENT OVERVIEW FOR NANOFABRICATION 3-2-2**

This course overviews basic material properties as well as environment, health, and safety (EHS) issues in equipment operation and materials handling in "top down" and "bottom up" nanofabrication. The chemical and physical materials properties underlying nanotechnology are surveyed. EHS topics arising from the processing and disposal of these materials are addressed including: cleanroom operation, OSHA lab standard safety training, health issues, biosafety levels (BSL) guidelines, and environmental concerns. Specific safety issues dealing with nanofabrication equipment, materials, and processing will also be discussed including those pertinent to wet benches, thermal processing tools, vacuum systems and pumps, gas delivery systems and toxic substance handling and detection.

*This course is designed to be one of six capstone courses (ESC 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Luber Bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.

***ESC 212 BASIC NANOTECHNOLOGY PROCESSES 3-2-2**

This course is an overview of the broad spectrum of processing approaches involved in "top down", "bottom up", and hybrid nanofabrication. The majority of the course details a step-by-step description of the equipment, facilities processes and process flow used in today's device and structure fabrication. Students learn to appreciate processing and manufacturing concerns including safety, process control, contamination, yield, and processing interaction. The students design process flows for micro- and nano-scale systems. Students learn

the similarities and differences in “top down” and “bottom up” equipment and process flows by undertaking hands-on processing. This hands-on overview exposure covers basic nanofabrication processes including deposition, etching, and pattern transfer.

*This course is designed to be one of six capstone courses (Esc 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, “hands-on” materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.

***ESC 213 MATERIALS IN NANOTECHNOLOGY 3-2-2**

This course is an in-depth, hands-on exposure to the producing and tailoring of the materials used in nanofabrication. The course will cover chemical materials production techniques such as colloidal chemistry; atmosphere, low-pressure and plasma enhanced chemical vapor deposition; nebulization; and atomic layer deposition. It will also cover physical techniques such as sputtering; thermal and electron beam evaporation; and spin-on approaches. This course is designed to give students experience in producing a wide variety of materials tailored for their mechanical, electrical, optical, magnetic, and biological properties.

*This course is designed to be one of six capstone courses (Esc 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, “hands-on” materials and facilities continually available to students. The course grade evaluation will use mixture of tests, presentations, reports and project assignments. Teaming and team problem solving will be stressed.

***ESC 214 PATTERNING FOR NANOTECHNOLOGY 3-2-2**

This course is a hands-on treatment of all aspects of advanced pattern transfer and pattern transfer equipment including probe techniques; stamping and embossing; e-beam; and optical contact and stepper systems. The course is divided into five major sections. The first section is an overview of all pattern generation processes covering aspects from substrate preparation to tool operation. The second section concentrates on photolithography and examines such topics as mask template, and mold generation. Chemical makeup of resists will be discussed including polymers, solvents, sensitizers, and additives. The role of dyes and antireflective coatings will be discussed. In addition, critical dimension (CD) control and profile control of resists will be investigated. The third section will discuss the particle beam lithographic techniques such as e-beam lithography. The fourth section covers probe pattern generation and the fifth section explores imprinting lithography, step-and-flash, stamp lithography, and self-assembled lithography.

*This course is designed to be one of six capstone courses (Esc 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert bldg., Manufacturing Technology and thus has a wide variety of very specialized, “hands-on” materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.

***ESC 215 MATERIALS MODIFICATION IN NANOTECHNOLOGY 3-2-2**

This course is a hands-on treatment of all aspects of advanced pattern transfer and pattern transfer equipment including probe techniques; stamping and embossing; e-beam; and optical contact and stepper systems. The course is divided into five major sections. The first section is an overview of all pattern generation processes covering aspects from substrate preparation to tool operation. The second section concentrates on photolithography and examines such topics as mask template, and mold generation. Chemical makeup of resists will be discussed including polymers, solvents, sensitizers, and additives. The role of dyes and antireflective coatings will be discussed. In addition, critical dimension (CD) control and profile control of resists will be investigated. The third section will discuss the particle beam lithographic techniques such as e-beam lithography. The fourth section covers probe pattern generation and the fifth section explores imprinting lithography, step-and-flash, stamp lithography, and self-assembled lithography.

*This course is designed to be one of six capstone courses (Esc 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert bldg., Manufacturing Technology and thus has a wide variety of very specialized, “hands-on” materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.

***ESC 216 CHARACTERIZATION, PACKAGING, AND TESTING OF NANOFABRICATED STRUCTURES 3-2-2**

This course examines a variety of techniques and measurements essential for testing and for controlling material fabrication and final device performance. Characterization includes electrical, optical, physical, and chemical approaches. The characterization experience will include hands-on use of tools such as the Atomic Force Microscope (AFM), Scanning Electron Microscope (SEM), 1 nm resolution field emission SEM, fluorescence microscopes, and Fourier transform infrared spectroscopy.

*This course is designed to be one of six capstone courses (ESC 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert Bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, “hands-on” materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.

NURSING

NUR 050 TRANSITION INTO ASSOCIATE DEGREE NURSING ..3-2-3

This course is designed to aid the student who is eligible for advanced standing with socialization from the previous role to the role of the registered nurse. The student will be familiarized with the College’s Nursing Program. The emphasis of the course will be on the use of the nursing process in the implementation of the roles of the associate degree nurse. Seminars, videotaping, presentations, independent study and clinical experience are all integral parts of this course. This course is offered on a pass/no pass (P/ NP) basis only. The grade will not affect grade point average. Prerequisites: Practical Nursing Licensure and Nursing Placement Examination for LPNs.

NUR 106 CONCEPTS OF NURSING 3-3-0

This course focuses on those basic concepts which form the foundation of nursing practice, including nursing history, caring, health, wellness-

illness, nursing process, communication, teaching- learning, legal-ethical principles of practice, cultural diversity, spirituality, theories of growth and development, and scope of nursing within the health care system. Examination of nursing theories helps introduce the philosophy and conceptual framework of the nursing program. This is a non-clinical course.
Co-requisites: BIO 131, ENG 101 and PSY 101

NUR 110 INTRODUCTION TO NURSING 8-5-9
This course is designed to develop caring attitudes and behaviors towards self and others and to provide a foundation of nursing skills. Application of these skills will occur with clients across the lifespan in wellness-oriented settings. Client needs will be identified using the nursing process, with an emphasis on assessment. Presentations, seminars and laboratory practice are an integral part of the course.
Prerequisites: All Sequence 1 courses.
Co-requisites: All Sequence 2 courses.

NUR 112 NURSING CARE OF CLIENTS WITH UNCOMPLICATED HEALTH CARE NEEDS 8-5-9
This course focuses on the use of the nursing process to assist clients across the lifespan experiencing commonly seen uncomplicated health care needs. There will be an emphasis on developing skills necessary to function as a member of the health care team. Clinical experiences will occur in a variety of settings.
Prerequisites: All Sequence 2 courses. Co-requisites: All Sequence 3 courses.

NUR 210 HOLISTIC HEALTH: COMPLEMENTARY AND ALTERNATIVE HEALTH PRACTICES 3-3-0
This course will explore the use of complementary and alternative health practices within a holistic framework of care. A spirit of inquiry will be encouraged through sharing of knowledge, demonstration and exploration of selected health practices such as herbal remedies, homeopathy, healing touch therapies, chiropractic and Eastern therapies. Use of complementary and alternative health practices will be evaluated in the context of managing health conditions such as pain, weight, addictions, and gender specific issues. This course will examine use of complementary and alternative health practices in terms of safety, effectiveness and integration into one's own lifestyle and working with others. (Also offered as ESW 210).
(Core Goal 10)

NUR 211 NURSING CARE OF CLIENTS WITH COMPLEX HEALTH CARE NEEDS .. 8-4-12
This course focuses on the use of the nursing process to assist clients across the lifespan experiencing frequently seen complex health care needs. There will be an emphasis on increasing autonomy within an expanded scope nursing practice. Clinical experience will occur in a variety of settings.
Prerequisites: All Sequence 3 courses. Co-requisites: All Sequence 4 courses

NUR 212 NURSING MANAGEMENT OF CLIENT CARE 8-3-15
This course focuses on the nursing management of clients, across the lifespan, experiencing acute and chronic healthcare needs. Emphasis will be on client advocacy and collaboration, in providing for the continuity of care. Clinical experiences will occur in a variety of settings.
Prerequisites: All Sequence 4 courses.
Co-requisites: NUR 213

NUR 213 PROFESSIONAL ISSUES IN NURSING 2-2-0
This course explores current issues in nursing such as legal-ethical questions, management styles, leadership roles, nursing research and health care delivery systems. It emphasizes transition from student nurse to professional nurse by exploring professional responsibilities and

accountability to self, profession and society. This is a non-clinical course.
Prerequisites: All Sequence 4 courses. Co-requisites: NUR 212

NUR 214 MIND-BODY CONNECTIONS ... 3-3-0
This course provides insights into and an understanding of mind-body connections as they influence one's health. Content will address the powerful ways in which emotional, mental, social, behavior, spiritual and physical health impact on each other. Principles of the emerging field of psychoneuroimmunology will be examined. The impact of stress on health and eliciting of the relaxation response will be explored. Cognitive structuring and dynamics of behavior change will be examined. Students will begin to develop healthy strategies for self-care through use of such modalities as biofeedback, mediation, breathing, journaling, guided imagery, aromatherapy, music and art therapies and humor within a holistic framework. (Also offered as ESW 214)
Prerequisites: Students must have successfully completed or tested out of ENG 011, ESL 009, ESL 011, REA 017, REA 011.

OFFICE MANAGEMENT

OFM 100 COMPUTER KEYBOARDING 1-1-0
This course introduces the "touch" method of keyboarding on the computer including the alphabet keys, number and symbol keys, and the keypad. Students work towards developing a keyboarding speed of 30-35 words per minute with accuracy. The course assumes no previous knowledge of keyboarding. It may be taken on a Pass/No Pass (P/NP) basis only. (The final course grade will not affect grade point average.)

OFM 101 BUSINESS SOFTWARE ESSENTIALS 3-3-0
This course is designed to introduce students to computer systems and how businesses and offices use these as tools for organization, communication, decision-making and analysis. This course provides students with an overview of the use of business application software and problem-solving using that software. Taking a multimedia approach, topics include business communication tools, scheduling and presentation software, management information systems, operating systems, word processing, spreadsheets, databases, enterprise resource planning (ERP) systems, project management systems and business use of social media and open-source software. Students will evaluate and implement the use of these programs to solve a variety of problems and scenarios via real-world simulation projects that one would encounter in typical business or office environments. Industry standard computer software will be used.
(Core Goals 4)

OFM 110 MICROSOFT WORD APPLICATIONS..... 3-3-0
This course provides a comprehensive overview of Microsoft Word software features commonly used in business environments. In this hands-on course, students will learn to create and customize documents using editing functions, formatting features, graphics and images, tables, charts, references, mail merge, and forms. This course will also prepare students to manage shared and collaborative documents with the use of the comments, track changes, protection, and sharing features.

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OFM 161 MODERN OFFICE MANAGEMENT3-3-0

This course emphasizes the essential skills required for administrative assistants working in a contemporary office environment. Topics include: typical office protocols, time management, office equipment and technology, records management, meeting and travel planning, and proper business communication. Students will develop their customer service, teamwork, and problem solving skills via real-world office simulations.

OFM 170 VIRTUAL OFFICE CAREERS AND TECHNOLOGIES 3-3-0

This course explores careers and entrepreneurial business opportunities in the virtual office environment and identifies techniques and technologies needed by virtual office workers. Specific topics include types of virtual offices, technologies and skills needed in a virtual office, ways to establish and manage a virtual office, effective communication, business planning and marketing and job opportunities. This course also examines issues for career preparation for work in a virtual environment.

OFM 175 INTRODUCTION TO VIRTUAL ASSISTANCE 3-3-0

This introductory course explores the Virtual Assistant industry and is designed to assist those wanting to utilize their administrative assistant skills while working from a home office or an off-site office. Upon completion of this course, the student should be ready to create their home-based virtual assistant business. Some of the topics to be covered include: how to operate a VA business, services to offer, naming and marketing your business, defining your clients, determining rates to charge, writing a contract, establishing a web presence, self-employment considerations, certifications, client relationships, bookkeeping/collections, working efficiently and demonstrating ethical values as a virtual assistant.

(Core Goals 13)

OFM 198 COOPERATIVE INTERNSHIP IN OFM3-0-15

This course consists of employment in a college-approved organization to enable the student to gain insight into the operation of a modern office. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.

Prerequisite(s): Permission of coordinator

OFM 243 INTEGRATED OFFICE SOFTWARE APPLICATIONS.....3-3-0

This capstone course builds upon prior word processing, spreadsheet, database, presentation, graphics, and multimedia skills, as it further develops and extends the student's ability to integrate and apply the technology needed for particular "job functions". Online and multimedia applications will be used to incorporate images, audio, and video into a variety of document formats. Students will further develop their decision-making, critical thinking, and problem solving skills via simulations of typical job functions found in professional office environments.

Prerequisite(s): CIS 110 - Information

OFM 245 DESKTOP PUBLISHING3-3-0

This course is designed for office professional staff, as well as for personal use. Using Microsoft Office Publisher software, students will reinforce and apply Windows skills, publication design techniques, page set-up and document layout, and work with text and graphic elements in a wide variety of business and personal publications. This is primarily a hands-on course.

Prerequisite(s): Permission of coordinator

OFM 250 PROOFREADING AND EDITING.....3-3-0

This course develops proficiency in proofreading and editing skills for the workplace. Students develop skills to detect and correct spelling, punctuation, and grammatical errors and to ensure the use of audience-appropriate language in written communications including memos, letters, reports, email messages, databases, presentation slides, advertisements, and spreadsheets. Students will learn correct formatting of documents from business, health care, finance, and education.

Prerequisite(s): Students must have successfully completed or tested out of: ENG 011 or ESL 011, or Approval of instructor

OFM 298 COOPERATIVE INTERNSHIP IN OFM II3-0-15

This course consists of continued employment in a college-approved organization to enable the student to gain insight into the operation of a modern office. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.

Prerequisite(s): OFM 198 - Cooperative Internship in OFM I and permission of coordinator

NUR 220 GENERAL PHARMACOLOGY 3-3-0

Designed for the student who has a basic understanding of the human body and how it works. This course emphasizes the major drug classifications, related legal/ethical considerations pharmacokinetics, pharmacodynamics, drug toxicity, and therapeutic monitoring.

(Also offered as HCP 220).

PHILOSOPHY

PHI 100 INTRODUCTION TO PHILOSOPHY 3-3-0

A general introduction to philosophical issues and the methods of philosophical investigation. The course may be essentially historical in its approach or essentially problem-focused. Readings may be drawn from 'big names' in the history of philosophy (e. g., Aristotle, Plato, Thomas Aquinas, Descartes, Locke, Hume, Mill, and others) or from contemporary state-of-the-discipline sources, or from both. Issues will include some from the following, among others: freewill and determinism; ethical relativism v ethical objectivism; the existence and rationality of belief in the existence of a god; the mind and body problem and the problem of other minds; the nature of persons and the possibility of artificial persons (thinking computers); applied philosophy issues such as the problem of abortion, the problem of same-sex marriage, the problem of the death penalty.

(Core Goals 2 and 13)

PHI 101 FUNDAMENTALS OF ETHICS 3-3-0

This course is an introduction to the history of the philosophical examination of ethics from ancient Greece through contemporary thought in Western Philosophy will be examined. Attention will also be given to non-Western ethical traditions (Confucianism, Buddhism, for example) that began even earlier than well-documented Western ethics. The substance of dominant varieties of objectivist views such as virtue ethics, utilitarianism, and deontological ethics will come under our scrutiny. Similar attention will be given to relativist/subjectivist opposition to these various objectivist views. An ongoing focal point for all of the inquiries in the course will be the "debate" between supporters of objectivist views and supporters of "anti"-objectivist views as this "debate" has progressed through history. This course will also include

discussion of the proper relation between the government and the diverse substantive ethical perspectives of individuals in a society such as the United States that is intentionally pluralistic.

(Core Goals 2, 5, 6, 12 and 13)

Prerequisite: Students must have successfully completed or tested out of ENG 011 or ESL 011.

PHI 110 INTRODUCTION TO LOGIC 3-3-0

This course will discuss and practice the fundamentals of both informal and formal logic: the analysis of arguments, the uses of language, definitions, recognizing and disarming fallacies, and the rules of valid deductive inference in terms of both classical syllogistic logic and a brief introduction to the basics of modern formal logic. This course has an Honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

PHI 115 PROBLEMS IN PHILOSOPHY. 3-3-0

An introduction to philosophy and philosophical investigation that is less general, but no more advanced, than PHI 100 (Introduction to Philosophy). Philosophical methods will be used to examine some of the most troublesome ethical/social issues of contemporary life. Among the issues/ problems that might be discussed are the following: The issues of cloning and genetic engineering; the issue of drug use and drug addiction; the issue of same-sex sexual relations and same-sex marriage; the issue of the use of non-human inhabitants of this planet for research and for food; the issue of punishment and the death penalty; the issues of euthanasia and assisted suicide; the issues of racism, sexism, ageism, and affirmative action. Alternative versions of this course may focus on topics such as justice, beauty, truth, and ultimate reality.

(Core Goals 2, 5, 12 and 13)

PHI 116 HISTORY OF PHILOSOPHY..... 3-3-0

A history of philosophy from the origins of scientific and philosophical thought in Ionia to the flowering of learning in Alexandria: a study of medieval philosophy: the teaching of the major philosophers of the Renaissance and eighteenth century, a view of the nineteenth century, with emphasis on central issues such as social philosophy, the philosophy of history, evolution, the theory of knowledge, and the scientific method; a study of the major contemporary philosophic movements in the West, including pragmatism. Idealism, realism, existentialism, logical positivism, linguistic analysis.

Prerequisite: Students must have successfully completed or tested out of ENG 011 or ESL 011.

PHI 117 ASIAN PHILOSOPHY 3-3-0

An introduction to the major Philosophical traditions of China, India, and Japan, including Hinduism, Buddhism, Confucianism, Taoism. In each tradition attention will be paid to both historical and contemporary investigations into the nature of reality, the nature of the self, the nature of knowledge, ethics, and death.

PHI 120 ETHICAL DECISIONS AFFECTING CONSUMERS AND THE HEALTH CARE PROFESSIONS3-3-0

This course addresses the needs of the health care consumer and the provider alike. Stemming from a philosophical base, this course will examine controversies emerging from rapid technological advances and modern health care practice. Conflicts discussed range from the person's right to choose or refuse a particular course of treatment to issues of

euthanasia, genetic research, and human experimentation. Students are encouraged to participate in discussions of ethical problems reported in the popular media and to develop a personal decision-making system which can be applied to a variety of ethical issues. Emphasis is on critical analysis and the incorporation of theory to ethical deliberations. The course is interactive, therefore, open discussion format and familiarity with use of the computer is essential. (Also offered as HCP 120.)

(Core Goal 2, 5, 6, 12 and 13)

PHI 199 INDEPENDENT STUDY 3-3-0

PHI 215 COMPARATIVE RELIGIONS 3-3-0

An examination and study of the historical backgrounds and present-day vitality of the major living religions of the world. Special attention will be focused on the study of the ideas, cultic and ethical practices, and philosophical systems of: Hinduism, Buddhism, Jainism, Sikhism, Judaism, Christianity, Zoroastrianism, Islam, Confucianism, Shintoism, and Taoism.

PHI 216 MAJOR FIGURES IN PHILOSOPHY: CLASSICAL AND MEDIEVAL 3-3-0

This course provides in-depth readings in four major philosophers of the ancient and medieval periods: Plato, Aristotle, Augustine and Aquinas. Students will read Plato's "The Republic" and selected dialogues, and major portions of Aristotle's works on "first philosophy" and ethics. Portions of Augustine's Confessions will also be examined as well as significant passages from Aquinas's works. Critical assessments of each philosopher will also be presented and examined.

Prerequisite: Philosophy 100 or PHI 116 recommended.

PHI 299 INDEPENDENT STUDY3-3-0

PHYSICS

PHY 120 INTRODUCTION TO ASTRONOMY 4-3-3

Introduction to Astronomy is a one-semester college-level course in basic astronomy. The course may be used as a laboratory science elective with basic algebraic applications. The course explores a broad range of astronomical concepts and principles in ten major areas: understanding the sky, apparent motions of the planets and the sun, telescopes and accompanying technology, basic structure and behavior of atoms, origin and analysis of light, origin of the solar system, internal structure and behavior of the sun, lifecycle of all stellar classes, origin and structure of galaxies and cosmology. Throughout the course, emphasis is placed on the implementation of the scientific method, the evidence that astronomers use to support their conclusions, and the importance of astronomy. (Night-time observing is required).

(Also offered as AST 120 and GLG 121)

(Core Goals 2, 5 and 8)

Prerequisites: A minimum grade of "C" or better within 5 years in both MAT 011 and ESL 011 or ENG 011.

PHY 121 GENERAL PHYSICS I..... 4-3-3 (ALGEBRA-BASED)

This course, designed for liberal arts and life science majors, is an algebra-based approach to the experimental and analytical study of Newtonian mechanics and thermal physics, emphasizing one- and two-dimensional kinematics, Newton's laws of motion, energy, momentum, conservation theorems, center of mass, rotational dynamics, static equilibrium, thermal properties of materials, calorimetry, the laws of

thermodynamics, and heat engines.
(Core Goals 2and 8)
Prerequisite: High school algebra or MAT 011.

**PHY 122 GENERAL PHYSICS II..... 4-3-3
(ALGEBRA-BASED)**

This course, designed for liberal arts and life science majors, is an algebra-based approach to the experimental and analytical study of oscillations, wave motion, acoustics, electrostatics, electric fields, basic direct-current circuits, magnetism, electromagnetic induction, light, and optics. The course also introduces the student to the basic concepts of modern physics.
Prerequisite: High school algebra or MAT 011. (PHY 121 is strongly recommended, but not required.)

**PHY 151 PRINCIPLES OF PHYSICS I 4-3-3
(CALCULUS-BASED)**

This calculus-based course, designed for science majors, presents in-depth an experimental and analytical study of Newtonian mechanics and thermal physics, emphasizing one- and two- dimensional kinematics, dynamics, work and energy, conservation theorems, linear and angular momentum, collisions, rotational dynamics, statics, fluid mechanics, thermal properties of materials, laws of thermodynamics, kinetic theory of ideal gases, calorimetry, Carnot cycle, heat engines, and heat pumps.
(Core Goals 2and 8)
Co-requisite: MAT 189 or MAT 190.

**PHY 152 PRINCIPLES OF PHYSICS II.. 4-3-3
(CALCULUS-BASED)**

A calculus-based course, designed for physical science majors, presents in-depth an experimental and analytical study of mechanical oscillators, simple harmonic motion, waves, acoustics, resonance, electrostatics, electric fields, DC and AC circuits, magnetism, electromagnetic induction, electromagnetic waves, including the laws of Coulomb, Faraday, Gauss, Ampere, and Kirchoff. The course will also cover the nature of light, and geo-metrical and physical optics, as applied to reflection, refraction, polarization, interference, and diffraction.
Prerequisites: MAT 189 or MAT 190 and PHY 151.
Co-requisites: MAT 201.

**PHY 153 MODERN PHYSICS 3-3-0
(FOR THE SCIENCE MAJOR)**

A one semester course covering an introduction to the basic concepts underlying modern physics. Topics include the theories Special Relativity and Quantum Mechanics with emphasis on the physical phenomena and experiments that led up to the origin of these theories. The course continues through a study of the applications of quantum mechanical theories to specialized areas of solids and nuclear physics. In addition to lectures and problem solving, the course will make use of computer facilities and software to permit the student to observe and experience simulations of realistic numerical problems in the field of modern physics.
Prerequisites: MAT 201 and PHY 152.

PHY 199 INDEPENDENT STUDY IN PHYSICS.....3-3-0

POLITICAL SCIENCE

POL 101 AN INTRODUCTION TO POLITICAL SCIENCE3-3-0

This course is an introduction to the field of political science and its various divisions including the study of political systems, institutions,

processes and behavior. The purpose of the course is to sensitize the students to the promise and limits of political analysis and prepare them to pursue more advanced courses.
(Core Goals 2, 5, 9, 11 and 12)

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion

POL 124 AMERICAN NATIONAL GOVERNMENT 3-3-0

An examination of the basic structure and functions of American National Government, with emphasis on the power relationships between the Congress, the President, and the Judiciary. Political parties, pressure groups, civil rights, and the federal structure of our government will be stressed. For students in the Criminal Justice Curriculum, POL 124 is required.
(Core Goals 2, 9, 11 and 12)

POL 125 AMERICAN STATE AND LOCAL GOVERNMENT 3-3-0

The operation of state and local government with analysis of their powers to tax and finance, enforce laws, regulate commerce and business, and promote social and economic welfare.
(Core Goals 9 and 11)

POL 202 CONSTITUTIONAL LAW: CIVIL LIBERTIES.....3-3-0

A study of constitutional guarantees designed to protect the individual against arbitrary, unreasonable, and oppressive government. Freedom of speech and of the press, religious freedom, freedom of assembly, property rights. Constitutional problems concerning crime and its punishment. POL 124 is recommended.
(Core Goals 9, 11 and 13)

POL 231 INTRODUCTION TO PUBLIC POLICY MANAGEMENT3-3-0

Principles of management applied to the public agency setting. An introduction to the theory and practice of public policy management, including in part: agency organization and structure; planning; budgetary and fiscal considerations; policy formulation and execution within the constitutional framework; human resource issues; and administrative law. Specific applications to health & human services, administration of justice, environmental, and regulatory functions of government, at federal, state, and local levels, will be considered.
Prerequisite: ENG 101

POL 250 TERRORISM AND COUNTERTERRORISM 3-3-0

Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values.
(Also offered as EMP 250, SOC 250, and CJS 250.)
Prerequisites: One introductory level course in any of the following: CJS, HIS, POL or SOC.

POL 251-252 GOVERNMENT INTERN I & II 3-3-0

Each of the above two Government Intern courses is a combination of 15 hours of classroom work and 120 hours of practical field work. In order to qualify for the course, the student must obtain sponsorship by a recognized

institution which has contacts with some level of government as part of its professional function. The institution will appoint an advisor responsible for overseeing the day-to-day work of the student. The overall responsibility for the program will be with the Coordinator of History and Political Science.

Prerequisites: Successful completion of one three-credit Political Science course and/or approval of Division Dean. For further information, contact the Social Sciences Division Dean.

POL 280 COMPARATIVE CRIMINAL JUSTICE SYSTEMS 3-3-0

The course examines the evolution and operation of criminal justice systems in other nations and cultures. The course will focus on the development of criminal justice in response to social, historical and political factors. Beginning with a brief history of the world's legal systems, followed by an analysis of their key procedural and substantive similarities and differences. The course will then turn to a range of other associated topics including the administration and function of police, corrections and courts, the impact of customary law and immigration on heterogeneous cultures, and the increasing internationalization of both the incidence of crime and the administration of criminal justice.

(Also offered as CJS 280.)

Prerequisites: CJS 100 or POL 101, or permission of the division head.

POL 299 INDEPENDENT STUDIES IN POLITICAL SCIENCE3-3-0

PSYCHOLOGY

PSY 101 INTRODUCTION TO PSYCHOLOGY..... 3-3-0

Basic preparation for advanced work in pure and applied psychology through an acquaintance with the fundamental principles of human behavior. The nature of psychology, biosocial basis of behavior, individual differences, dynamics of behavior, personality and mental health will be examined.

(Core Goals 2, 5 and 9)

PSY 136 PERSONALITY 3-3-0

A comparison of major approaches to the study of the development and structure of normal personality. Topics include the applications of psychological research to understanding and promoting mental health and human resilience. Consideration is given to the role of healthy personality in managing frustration, conflict, adjusting to predictable and unpredictable life changes, and achieving maximum well-being.

PSY 137 INTRODUCTION TO ORGANIZATIONAL PSYCHOLOGY3-3-0

Explores the application of psychological theory and research to understanding and improving work environments in both for-profit and non-profit organizations. Students will gain skills through experiential learning of topics including: enhancing motivation, performance evaluation, job satisfaction, communication, conflict resolution, achievement, and leadership.

(Core Goals 9, 11, 12 and 13)

PSY 200 CHILD PSYCHOLOGY 3-3-0

This course is a study of human development from concept through adolescence. Physical, psychological, social, and emotional development is examined. The major theories are introduced as the backbone to the course. Research and its application to child development is also included. Historical relevance and cultural differences are also embedded throughout the course.

(Core Goal 9)

Prerequisite: PSY 101

PSY 203 ASSESSMENT & DOCUMENTATION

IN HUMAN SERVICES 3-3-0

This course is designed to teach students the necessary skills to assess and document client interactions in a human services agency or program. Students will explore the nature of the helping relationship, demonstrate their active listening abilities, learn how to gather information, build treatment plans, and write case notes. Students will also understand case management in a managed care environment, and the legal, ethical and regulatory implications of comprehensive assessment and documentation. (Also offered as HSW 203)

Pre-requisite: ENG 101, HSW 101, with a grade of "C" or higher.

PSY 204 ADOLESCENT PSYCHOLOGY 3-3-0

The effect of experiences in childhood and of cultural institutions on puberty is examined. Included are major areas of progression and regression of personality, central conflicts and methods of coping with stress, characteristics of adolescent phases of development.

PSY 206 HUMAN DEVELOPMENT A LIFE-SPAN APPROACH.... 3-3-0

A study of human development from conception to death. The physical, social, psychological and cognitive aspects of life-span development will be examined. The major theories of human development, as well as the age-and age stage-related changes and potential crisis will be given careful attention.

(Core Goal 9)

PSY 210 EDUCATIONAL PSYCHOLOGY. 3-3-0

This course investigates three models (Behavioristic, Humanistic, and Cognitive) of human functioning and selected learning strategies derived from each. In addition, a number of traits and behaviors (e.g., motivation, curiosity, creativity, and intelligence) related to children's learning and cognitive development are explored.

PSY 214 SOCIAL PSYCHOLOGY 3-3-0

An examination of the function of the individual in social groups and the mutual influences of one upon the other. Emphasis is placed upon the processes of communication, persuasion, attitude and opinion formation and change, the structure and function of small groups and the techniques employed in measuring these phenomena.

(Core Goal 9)

PSY 215 ABNORMAL PSYCHOLOGY... 3-3-0

Biology, behavior and environment interact in complex ways to produce what is defined as abnormal. Historical material, pertinent research and relevant case studies provide an understanding of abnormal psychology and its impact on all of us.

PSY 216 ASSESSMENT AND TECHNIQUES FOR CHILDREN AND YOUTH 3-3-0

This course is designed to develop knowledge and skills in assessing the risk factors in the current situation of the child and/ or adolescent. The course will focus upon the youth's educational, social, psychological, emotional and physical environment to determine the level of required intervention. Students will learn the techniques needed to assess and reduce risk factors. (Also offered as HSW 216.)

Prerequisites: HSW 101

PSY 217 DRUGS - THEIR USE AND ABUSE..... 3-3-0

This course explores the scientific facts about drugs commonly used and abused and their impact on human life. It details and integrates biological, psychological, social and cultural components of the most popular psychoactive substances. Legal, illegal, prescription, over-

the-counter, performance enhancing substances as well as herbal medications is researched and described.

PSY 219 THE DRUG AND ALCOHOL TREATMENT PROCESS: AN INTRODUCTION3-3-0

To provide a working knowledge of the helping process as it applies to drug and alcohol counseling. Students completing this course should be able to: develop assessment and diagnostic skills; formulate appropriate goals and treatment plans; improve interviewing and intervention skills with drug/alcohol clients; discuss and compare individual, group, and family treatment approaches; describe the levels of service available to drug/alcohol clients and their families; use AA, AL-ANON and other support groups as treatment allies; appreciate the impact of sex, age, ethnicity, race and religion on the treatment process; and understand the American Psychiatric Association's assessment of substance use disorders, anti-social personalities and depression. (Also offered as HSW 219.)

PSY 231 RESEARCH METHODS IN PSYCHOLOGY 4-3-2

This course provides students with foundational knowledge and skills required to conduct valid research in psychology and other social sciences. Students will learn how to formulate a research study, prepare a proposal, and identify the ethical guidelines for research with human subjects. Approaches to measurement of behavior and experience, analysis and interpretation of results, and preparation of a written report of findings will be included. Three hours per week will be devoted to lecture/class presentation, and one hour per week will be spent in guided small group work on development and implementation of a research project.

Prerequisites: PSY 101 and MAT 131

PSY 232 POSITIVE PSYCHOLOGY 3-3-0

This course provides an overview of the field of Positive Psychology. The course is designed to broaden the scope of traditional Psychology by examining the circumstances under which humans, institutions, and communities thrive. It presents theory and research related to strengths, optimism, happiness, and resiliency. A strong emphasis is placed on the application of empirically-based knowledge. Information is delivered through lectures, readings, in-class exercises, out-of-class activities, and class discussion.

(Core Goal 9)

PSY 250 PSYCHOLOGY OF AGING: HELPING SKILLS IN WORKING WITH OLDER ADULTS 3-3-0

This course is an in-depth exploration of psychological theories and their applications to appreciating and working with older adults. Students will have the opportunity to gain an increased understanding of their own personal development and self-knowledge in the context of the life cycle and to explore feelings about the aging process. Classroom experiences that focus on enhancing communication skills will be designed to enable students to translate psychological theories and helping techniques to everyday family and job-related encounters with older adults. Open to all majors. (Also offered as HSW 250.)

Prerequisite: HSW155 or PSY101 or SOC 101.

PSY 255 HUMAN SEXUALITY..... 3-3-0

A survey of the major topics of human sexuality with emphasis on: sexual development, functioning, behavior; gender identification, reproduction, interpersonal relationships, health, historical and cultural sex studies, and sex education.

(Also offered as ESW 255.)

(Core Goals 9, 10, 12 and 13)

PSY 299 INDEPENDENT STUDY IN PSYCHOLOGY3-3-0

RADIOGRAPHY

RAD 100 INTRODUCTION TO RADIOGRAPHY AND PATIENT CARE..... 3-3-0

This course will provide the student with an overview of the foundations in radiography and the practitioner's role in the health care delivery system. Principles, practices and policies of the health care organizations will be examined and discussed in addition to the professional responsibilities of the radiographer. Communication skills and professional conduct of the radiographer in the clinical setting will also be introduced. Basic concepts of patient care, physical and psychological needs of the patient, and routine and emergency patient care will be described. Human diversity in health care will be discussed and its impact in the treatment of patients. In addition, a self-teaching workbook and self-assessments will be utilized to learn medical terminology.

Prerequisites: Completion of selective admissions guidelines and admission to the Radiography Program.

Co-requisites: All second semester courses in the Radiography Program of Study.

RAD 102 RADIOGRAPHIC EXPOSURE AND TECHNIQUE 3-2-2

This course is designed to provide the student with the entry-level knowledge base to formulate the applicable factors that influence the production of radiographs. Film and digital imaging with related accessories will be discussed. Demonstrations and student experimentation will be included in the application of the theory.

Prerequisites: Completion of selective admissions guidelines and admission to the Radiography Program.

Co-requisites: All second semester courses in the Radiography Program of Study.

RAD 103 RADIATION PROTECTION AND BIOLOGY 2-2-0

This course is designed to present an overview of the basic principles of radiation protection. Included in this course are the various methods of protecting the radiographer, patient and others from unnecessary radiation exposure and limitation devices used to limit exposure. Basic principles regarding exposure will be discussed. Radiation health and safety requirements of federal and state agencies will also be incorporated.

Prerequisites: All second semester courses in the Radiography Program of Study

Co-requisites: All third semester courses in the Radiography Program.

RAD 104 CLINICAL EDUCATION I 3-0-15

During this first semester of Clinical Education, students will be assigned to clinical areas in the clinical education center, which coincide with didactic information covered during the semester in Introduction to Radiography and Patient Care (RAD 100), Procedures I (RAD 111), and Radiographic Exposure and Technique I (RAD 102). Students will be oriented to ethics and laws as they pertain to radiographers, clinical rules and regulations, the department of radiology to which they are assigned, and the clinical education handbook. Students will attend clinical education for 15 hours per week.

Prerequisites: Completion of selective admissions guidelines and admission to the Radiography Program.

Co-requisites: All second semester courses in the Radiography Program of Study.

RAD 105 RADIATION PHYSICS 3-3-0

This course is designed to establish a basic knowledge of atomic structure and terminology. The nature and characteristic of radiation, x-ray production and the fundamentals of photon interactions with matter

are included. Students will establish a knowledge base in radiographic, fluoroscopic, mobile, and tomographic requirements and design. Basic quality control will also be discussed.

Prerequisites: All fourth semester courses in the Radiography Program of Study. Co-requisites: All fifth semester courses in the Radiography Program of Study.

RAD 111 RADIOGRAPHIC PROCEDURES I 3-2-2

Radiographic Procedures I is designed to provide the knowledge base necessary to perform standard radiographic procedures. This course combines didactic coursework along with laboratory demonstration, simulation and practice. Students will learn radiographic procedures of the chest, abdomen and upper extremities.

Prerequisites: Completion of selective admissions guidelines and admission to the Radiography Program.

Co-requisites: All second semester courses in the Radiography Program of Study.

RAD 112 RADIOGRAPHIC EXPOSURE AND TECHNIQUE II 3-2-2

This course is a continuation of RAD 102. More comprehensive examination of production of quality radiographs is discussed. Students will be exposed to the practical applications of quality control and assurance in radiology departments. Class discussion, laboratory demonstration and simulation will be utilized.

Prerequisites: All second semester courses in the Radiography Program of Study.

Co-requisites: All third semester courses in the Radiography Program of Study.

RAD 114 CLINICAL EDUCATION II. 3-0-15

This clinical course is a continuation of Clinical Education I. Emphasis is place on clinical rotations where students can observe, practice and perform those examinations learned and simulated in the Radiographic Procedures I and II course. Students will be required to perform competency examinations, image evaluations and proper patient care procedures.

Prerequisites: All second semester courses in the Radiography Program of Study.

Co-requisites: All third semester courses in the Radiography Program of Study.

RAD 121 RADIOGRAPHIC PROCEDURES II 3-2-2

This course is a continuation of the Radiographic Procedures I (RAD 111) course. This course is designed to prepare the student to perform certain radiographic procedures of the lower extremities and spine that are of optimal diagnostic quality. Laboratory experience combined with simulations and clinical experience are used to complement the didactic portion of the course.

Prerequisites: All second semester courses in the Radiography Program of Study.

Co-requisites: All third semester courses in the Radiography Program of Study.

RAD 124 CLINICAL EDUCATION III 4-0-20

This course is a continuation of the Clinical Education series. Students will spend 20 hours per week during the Summer Sessions at the clinical education center observing, assisting and performing radiologic examinations. Students will utilize this concentrated time to master positioning, technique and patient care skills that they learned throughout the first year of the program.

Prerequisites: All third semester courses in the Radiography Program of Study.

Co-requisites: All fourth semester courses in the Radiography Program of Study.

RAD 214 CLINICAL EDUCATION IV 4-0-20

The student will observe, assist and perform radiographic examinations at the Clinical Education Centers that correlate with the didactic courses in those areas. Special attention during this semester will be given to fluoroscopic procedures as well as imaging of the skull and sinuses.

Prerequisites: All fourth semester courses in the Radiography Program of Study.

Co-requisites: All fifth semester courses in the Radiography Program of Study.

RAD 221 RADIOGRAPHIC PROCEDURES III 3-2-2

As a continuation of Radiographic Procedures, this course will provide the student with the knowledge to perform standard radiographic procedures of the skull and sinuses and contrast media studies. Special studies including, angiography, mammography, CT, MRI and vascular imaging will be included. Coursework will also include pharmacology and cross sectional anatomy. Laboratory simulations as well as student practice will be emphasized in this course.

Prerequisites: All fourth semester courses in the Radiography Program of Study.

Co-requisites: All fifth semester courses in the Radiography Program of Study.

RAD 224 CLINICAL EDUCATION V..... 4-0-20

As the last of the clinical education series, students will be completing their clinical competency examinations and will have the opportunity to rotate to various specialty areas in the radiology department. In addition, program officials and/or designees will be completing terminal competency examinations with each student to assure program competency. Terminal competency evaluations must be successfully completed by each student in order to be eligible for graduation and professional practice.

Prerequisites: All fifth semester courses in the Radiography Program of Study.

Co-requisites: All sixth semester courses in the Radiography Program of Study.

RAD 230 RADIOGRAPHIC PATHOLOGY 2-2-0

This course introduces theories of disease causation and the pathophysiologic disorders that compromise healthy systems as applied to the radiographer. Etiology, responses and radiographic manifestations will be discussed. Each major body system will be included to address radiographic appearance of disease and disease management. The major emphasis of this course is how radiographic examinations demonstrate different pathologies.

Prerequisites: All fifth semester courses in the Radiography Program of Study.

Co-requisites: All sixth semester courses in the Radiography Program of Study.

RAD 250 PROFESSIONAL ISSUES IN RADIOGRAPHY 1-1-0

This culminating course will assist the graduate in preparing for job interviews, career advancement, resume writing and other life skills that the graduate radiographer will need. With the use of guest speakers, representatives from area institutions and career placement counselors, the student will complete the curriculum with the advantage of career advice and counseling. Students will be required to complete a capstone project.

Prerequisites: All fifth semester courses in the Radiography Program of Study.

Co-requisites: All sixth semester courses in the Radiography Program of Study.

READING AND COGNITIVE DEVELOPMENT

***REA 010 ELEMENTS OF READING 0-3-0**

Reading 010 is a developmental course designed to help students process the skills of word recognition, word analysis, vocabulary building, and basic comprehension of reading passages. An appreciation of reading as a basic tool of learning will be fostered. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisite: Reading placement test recommendation of REA 010.

*Placement into developmental level courses restricts college level course choices.

***REA 011 FUNDAMENTALS OF COLLEGE READING. 0-3-0**

This is a course designed to develop higher level reading comprehension skills necessary at the college level. Interpretative and analytical comprehension of sentences, paragraphs, and selections of increasingly complex materials are included. The development of more extensive vocabulary is emphasized. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

Prerequisite: Students must have successfully completed or tested out of REA 010.

*Placement into developmental level courses restricts college level course choices.

***REA 014 VOCABULARY AND READING COMPREHENSION DEVELOPMENT I..... 0-3-0**

This course is designed to increase the non-native English speaking student's general English vocabulary, so he/she will be better able to comprehend written materials at the post secondary level. Students will use texts of narrative non-fiction to build their knowledge of the American English language. Expanding vocabulary through a study of idioms, roots, and affixes is also included. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

(Also offered as ESL 014.)

Prerequisite: Students must have successfully completed or tested out of: ESL 006 - English as a Second Language II Or by permission of the instructor

*Placement into developmental level courses restricts college level course choices.

***REA 017 VOCABULARY AND READING COMPREHENSION DEVELOPMENT II 0-3-0**

Reading Comprehension Development II is designed to prepare the more advanced non-native English speaking student to become ready to succeed in a college curriculum. The materials are at an intermediate to advanced level. The student will read cross-cultural stories, passages, essays, and explore readings from American authors, learn about American culture through the readings and respond to them orally and in writing. The student will also be responsible for learning extensive new vocabulary from their text. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

(Also offered as ESL 017.)

Prerequisite: Completion of REA014 or equivalent.

*Placement into developmental level courses restricts college level course

REA 110 COMPREHENSION STRATEGIES FOR COLLEGE READING I 3-3-0

This course is designed to enhance higher level critical reading and thinking skills through extensive guided practice with academic discipline-based and informational readings. Students learn several appropriate problem-solving strategies: analysis, interpretation, synthesis, and evaluation. Practice and utilization of discipline- specific vocabulary and lecture related note-taking are also fostered.

(Core Goal 12)

Prerequisites: Students must have successfully completed or tested out of REA 011 ore REA 017 with a minimum grade of a "C."

REAL ESTATE

RES 101 REAL ESTATE FUNDAMENTALS... 2-2-0

Student will learn the language, principles, and laws that govern the business of real estate. Emphasis is on the underlying concepts of Land, Property, Rights in Realty and the means, methods, and laws that govern the conveyance of these rights. This is one of the two courses required by the State of Pennsylvania for licensure as a real estate salesperson.

RES 102 REAL ESTATE PRACTICE 2-2-0

Students will learn the basic techniques, procedures, regulations, and ethics involved in real estate transactions along the forms and documents used including the related mathematics. This is one of the two courses required by the State of Pennsylvania for licensure as a real estate salesperson.

Prerequisite: RES 101.

RES 131 RESIDENTIAL PROPERTY MANAGEMENT3-3-0

In addition to building a solid foundation of residential property management fundamentals, this course introduces students to concepts and issues that are shaping the theory and practice of residential property management. Students discuss the history of real estate management, the techniques of operating real property, and the scope of real estate management.

Prerequisite(s):

RES 101 - Real Estate Fundamentals

RES 102 - Real Estate Practice

RES 132 NON-RESIDENTIAL PROPERTY MANAGEMENT3-3-0

This course introduces students to concepts and issues that are shaping the theory and practice of non-residential property management while building a solid foundation of non-residential property management fundamentals. Students discuss the history of real estate management, the techniques of operating real property, and the scope of real estate management.

Prerequisite(s):

RES 101 - Real Estate Fundamentals

RES 102 - Real Estate Practice

RES 151 REAL ESTATE SALES.....3-3-0

This course introduces students to the residential real estate sales profession; in addition, the course navigates students through a complete prospecting, listing, and sales cycle for a residential real estate transaction.

Prerequisite(s):

RES 101 - Real Estate Fundamentals

RES 102 - Real Estate Practice

RES 152 REAL ESTATE BROKERAGE AND OFFICE MANAGEMENT3-3-0

This course will delineate the factors involved in the planning and organization of a real estate brokerage business. Emphasis will be placed on office structure, business and human resource management, business ethics, and legal issues.

Prerequisite(s): RES 151 - Real Estate Sales

RES 171 REAL ESTATE CONSTRUCTION.....3-3-0

This course provides students with an overview of the history and current trends in the residential construction market. It explores principles of real estate property development including the various architectural styles

and structural systems, and to take the student through the construction process beginning with site selection and ending with delivery of the property to the buyer.

Prerequisite(s):

RES 101 - Real Estate Fundamentals

RES 102 - Real Estate Practice

RES 198 CO-OP INTERNSHIP IN REAL ESTATE I. 3-0-15

This course consists of employment in a college-approved real estate organization to enable the student to gain insight into the selling, appraising, financing, or managing of real estate. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.

Prerequisites: RES 101 and RES 102 and permission of coordinator.

RES 211 REAL ESTATE FINANCE 3-3-0

Students will learn the commonly used real estate financing instruments as well as the basic structures of real estate financial institutions and their policies. Topics include sources of funds, form and use of financing instruments, and the role of the government in the mortgage field.

Prerequisites: RES 101 and RES 102.

RES 221 REAL ESTATE LAW 3-3-0

Students will learn the basic legal concepts needed by persons involved in real estate practice. Included are the nature and importance of deeds, agreements of sale, leases, judgments, liens, and other encumbrances on title, title insurance, and closing procedures.

Prerequisites: RES 101 and RES 102.

RES 241 APPRAISAL OF RESIDENTIAL PROPERTY 3-3-0

Students learn the principles involved in the appraisal of residential properties. Emphasis is placed on the types of appraisals, analysis of sales, neighborhood analysis, basic construction design, and preparation and use of appraisal reports.

Prerequisites: RES 101 and RES 102.

RES 242 APPRAISAL OF INCOME PRODUCING PROPERTY..... 3-3-0

This is a course designed to acquaint the student with the principles of appraising income-producing property. Topics will include highest and best use analysis, overview of income capitalization, gross income and expense analysis, direct capitalization, yield capitalization, internal rates of return and measures of investment performance.

Prerequisite(s): RES 241 - Appraisal of Residential Property

SOCIOLOGY

SOC 101 INTRODUCTION TO SOCIOLOGY 3-3-0

This course introduces the scientific study of human society. It presents the basic components of sociology, i.e., groups, society, culture, socialization, institutions, collective behavior, stratification, and social change, for review and critique. Social structures, social rules and change within society are explored with respect to the history of societal development as well as current social trends.

(Core Goals 2, 5, 9 and 12)

This course has an honors version. It offers qualified students an opportunity to complete a more intensive version of the course goals in a small classroom setting. Students should expect more in-depth reading, writing and oral assignments and classroom discussion.

SOC 103 SOCIAL PROBLEMS..... 3-3-0

This course offers a critical examination of major social problems in the contemporary United States within the context of wider global issues. Students will learn to think sociologically about the causes and consequences of contemporary social problems. Course focus is on uncovering the social conditions, forces, and social structures that give rise to social problems. Problems covered include but are not limited to: poverty, gender, homophobia/ heterosexim, race and class inequality, crime, education, environment and health care.

(Core Goals 5, 9 and 13)

SOC 105 SOCIAL POLICY & ETHICS IN HUMAN SERVICES 3-3-0

This course examines the relationship of social policy, ethics, and the human services field. Students will address ethical dilemmas, particularly as they relate to current and needed social policies on local, state, and national levels. A basic understanding of social welfare theories will assist the student in evaluating, assessing, and advocating for change in both a micro / macro perspective. The Ethical Standards of Human Service Professionals (National Organization for Human Services) will serve as a backbone for students to use in decision-making, assessment of clients and client groups, and promotion of change in a diverse setting. (Also offered as HSW 105)

(Core Goals 9, 12:and 13)

SOC 130 INTRODUCTION TO YOUTH AND FAMILY SYSTEMS3-3-0

The introductory course examines children and youths within the context of their familial role. Emphasis is placed upon non-traditional as well as traditional family systems and the impact that issues such as divorce, substance abuse, child abuse and incarceration have on the various units in the family system. (Also offered as HSW 130.)

SOC 220 CRIMINOLOGY 3-3-0

A study of crime and delinquency patterns, their causes, and remedial measures, emphasizing social, economic, and psychological forces involved, including the role of treatment and law enforcement.(Also offered as CJS 220)

Prerequisites: CJS 100

SOC 224 MINORITIES IN THE UNITED STATES 3-3-0

This course is designed to study the historical and contemporary experiences of major ethnic, racial, religious minorities in the United States. Course examines the reasons for their migrations, problems encountered, and prohibitions preventing some from participating in the mainstream of American life. Focus is both sociological and historical.

Prerequisite: SOC 101

(Core Goals 9 and 12)

SOC 230 SOCIOLOGY OF FAMILIES 3-3-0

This course explores the historical development of families; class, ethnic and sexual variations of family structure in contemporary societies; social issues that impact contemporary families; the division of labor and power in families; and current trends in American family patterns.

(Core Goals 9 and 12)

SOC 244 SOCIOLOGY OF DEATH AND DYING 3-3-0

The course consists of an investigation of the following topics: individual attitudes on death and dying, social and cultural attitudes on death and dying, socializing the individual into attitudes on death and dying, medical concept of death and dying, legal concept of death and dying, demographic data on death and dying, death and dying and its effect on the economy, the family and death, religion (attitudes and ritual) and

death, euthanasia and suicide as well as practical methods for dealing with death and the dying.

SOC 250 TERRORISM AND COUNTERTERRORISM 3-3-0

Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values.

(Also offered as EMP 250, POL 250, and CJS 250.)

Prerequisite: Introductory level course in any of the following: CJS,HIS,POL, or SOC

SOC 254 AGING IN THE UNITED STATES 3-3-0

This course is an in-depth exploration of current social issues concerning older adults in U.S. society. Students will examine the social needs which confront all older people and those needs of particular sub-groups of the older population such as the frail elderly, women, and minorities. Emphasis will be placed on reviewing the legislation which has led to the creation of programs and services for meeting the needs of older adults and on analyzing the system of services to detect areas of unmet needs, such as the need for "long-term care." Students will have the opportunity to gain an understanding of techniques of advocacy which can be used on behalf of and in concert with older persons. Open to all majors. (Also offered as HSW 254)

Prerequisite: HSW155 or PSY101 or SOC 101.

SOC 255 ORGANIZED CRIME..... 3-3-0

This course examines the problem of organized crime (OC) from an interdisciplinary perspective, including a series of key legal, law enforcement and social issues, with a focus on American OC and enterprise crime in comparative perspective. Topics will include: the concept and definition of OC; a range of theoretical perspectives on OC; the relationship between white collar, criminal organized crime, enterprise crime and non-criminal economic activity; historical origins; ethnic connections; international linkages; models of organized crime; major organized crime groups; major organized criminal activities; emerging organized criminal activities; the relationship of OC to public corruption; strategies for combating organized crime; and the future outlook. (Also offered as CJS 255.)

Prerequisites: CJS 100 or SOC 101, or permission of the Division Dean

SOUND RECORDING MUSIC TECHNOLOGY

SRT 104 INTRODUCTION TO SOUND RECORDING TECHNOLOGY.....3-2-2

This course introduces the theory and operation of sound recording equipment for music production, video, filmmaking, animation, and radio. Students are introduced to sound theory and the basics of recording and editing and then complete assignments in basic equipment operation. In addition to production, emphasis is placed on aesthetic analysis of sound through a series of critical listening assignments and workshops where voice, sound effects, and music are combined to create theater of the mind.

Prerequisite: MUS 120 or permission of instructor

SRT 130 SRT SOFTWARE WORKSHOP I.....1-0-2

SRT Software Workshop I is a breakout course that introduces students to specialized sound recording and music technology software. Students expand upon what they have learned in SRT 104 and MUS/SRT 140 by applying new techniques in recording, editing, sequencing and signal processing in current software applications. The course focuses on sampling, sequencing and processing within software packages such as Ableton Live, Komplete, Reason and ProTools. Students participate in task-oriented workshops where they are introduced to the procedures, methods, and operation of specialized software.

Prerequisite(s): SRT 104 - Introduction to Sound Recording Technology, MUS 140 - Introduction to Digital Music Technology, Or Permission of the SRT Program Coordinator

SRT 131 LIVE SOUND RECORDING AND REINFORCEMENT WORKSHOP I.....1-0-2

Live Sound Recording and Reinforcement Workshop I is a breakout course that introduces students to the principles and practice of live sound recording and reinforcement. The course focuses on system components, set-up, management, mixing and troubleshooting, as well as principles and concepts fundamental to live sound recording and reinforcement. Students participate in task-oriented workshops where they are introduced to the procedures, methods, and operation of live sound equipment. They obtain hands-on industry experience in recording and reinforcement at various local venues featuring live performances.

Prerequisite(s):SRT 104 - Introduction to Sound Recording Technology, MUS 140 - Introduction to Digital Music Technology Or Permission of the SRT Program Coordinator

SRT 159 INTRODUCTION TO MUSIC PRODUCTION.....3-2-2

The successor to the Artists-and-Repertoire executive of pop's golden era, the producer, stands at the point of intersection between a recording's human element and its increasingly advanced technological aspect. Often a producer's work results in a signature style or "sound"; if this sound is especially novel or musically persuasive, top recording artists may energetically seek the producer out. SRT 159 will explore the art and history of production as it relates to music past and present. Students will experience the original recordings of great songs recorded by great producers. Emphasis will be placed on the differences between producers and their individual styles, identifying key production techniques, and utilizing them in recordings that students will produce themselves.

Prerequisite(s): MUS 141 - Intermediate Digital Music Technology SRT 250 – Sound Recording Technology I Or Permission of the SRT Program Coordinator

SRT 214 THE EVOLUTION OF SOUND RECORDING TECHNOLOGY.....3-3-0

A survey of the history and evolution of Sound Recording and Music Technology and its impact on the recording industry, music, and society. Topics include the development of sound technology in the U.S. and Europe, the birth of the recording industry, and how recording sound influenced music and created current and emerging technologies. Emphasis is placed on understanding the evolution of sound recording technology and its impact on music and the recording industry.

Prerequisite(s): SRT 104 - Introduction to Sound Recording Technology Or Permission of the SRT Program Coordinator

SRT 230 SRT SOFTWARE WORKSHOP II1-0-2

This breakout course is a continuation of SRT 130 and further explores specialized sound recording and music technology software. Students expand upon what they have learned in SRT 130, SRT 250 and MUS 141 by applying new techniques in recording, editing, sequencing and signal processing in current software applications. The course focuses on sampling, sequencing and processing within software packages such as Ableton Live, Melodyne, Komplete, Waves, Reason and ProTools. Students participate in task-oriented workshops where they are introduced to the procedures, methods, and operation of specialized software.

Prerequisite(s): SRT 130 – SRT Software Workshop I MUS 141 - Intermediate Digital Music Technology SRT 250 – Sound Recording Technology I Or Permission of the SRT Program Coordinator

SRT 231 LIVE SOUND RECORDING AND REINFORCEMENT WORKSHOP II.....1-0-2

This breakout course is a continuation of SRT 131 and further explores the principles and practice of live sound recording and reinforcement. The course focuses on system components, set-up, management, mixing and troubleshooting, as well as principles and concepts fundamental to live sound recording and reinforcement. Students participate in task-oriented workshops where they are introduced to the procedures, methods, and operation of live sound equipment. They obtain hands-on industry experience in recording and reinforcement at various local venues featuring live performances.

Prerequisite(s): SRT 131 – Live Sound Recording and Reinforcement Workshop I SRT 159 – Introduction to Music Production SRT 250 – Sound Recording Technology I Or Permission of the SRT Program Coordinator

SRT 242 MUSIC BUSINESS APPLICATION3-0-0

This course is a continuation of studies begun in MUS 241 The Business of Music.

Students will focus in the individual elements of the Music Business Marketing Plan created in the previous course and the realization of that plan with an in depth focus in online music marketing, promotion strategies, social media, legal structuring of the business and the financial considerations that go with running a business. Recommended but not required: MUS 140 (Introduction to Digital Music Technology) and/or MUS 240 (The Art and Business of Songwriting).

Prerequisite(s): Students must have successfully completed MUS 241 and/or tested out of ENG011, ESL011, REA 017, REA 011, and MAT 011

SRT 250 SOUND RECORDING TECHNOLOGY I3-2-2

This course introduces students to the theory and practice of sound recording technology and music production. Students are introduced to sound recording and production techniques including multi-track music recording, mixing, editing, and signal processing. Emphasis is placed on the procedures and processes of preparing for and carrying out a basic production from start to finish. Students act as the sound engineer, producer, director, and embody other production roles. Students work to expand their aesthetic understanding, analyze sound through production, and participate in a series of critical listening assignments and workshops.

Prerequisite(s): SRT 104 - Introduction to Sound Recording Technology Or Permission of the SRT Program Coordinator

SRT 256 SOUND RECORDING TECHNOLOGY II3-2-2

This course explores the theory and practice of sound recording technology and music production. Emphasis is placed on the technical application of multi-track music recording, mixing, editing, signal processing, equalization, DSP, and MIDI sequencing. Students oversee

and participate in productions from the early stages of conception, through the process of distribution. Students expand their aesthetic analysis of sound through a series of critical listening assignments and workshops.

Prerequisite(s): SRT 250 – Sound Recording Technology I Or Permission of the SRT Program Coordinator

SRT 259 MUSIC PRODUCTION3-2-2

The sound recording producer, as the person most immediately responsible for making a recording, often needs a strong grasp of various recording techniques as well as interpersonal skills which reflect an understanding of human psychology, as well as technical expertise. In the hip-hop & R&B genre, where the creation of a recording and the act of providing a distinctive sonic quality may be one and the same, therefore, artists are often listed as their own producers.

SRT 259 will explore music production from both the artist's and producer's perspective, while distinguishing between the two perspectives. Students will create individual productions using various techniques introduced in class which will build upon what was learned in SRT 159. Emphasis will be placed on individual and group critique where students analyze and discuss the various student productions based on the theory and techniques of production.

Prerequisite(s): SRT 159 - Introduction to Music Production SRT 256 – Sound Recording Technology II Or Permission of the SRT Program Coordinator

SRT 290 SOUND RECORDING AND MUSIC TECHNOLOGY CAPSTONE1-0-2

Sound Recording and Music Technology Capstone provides opportunity for students to develop, produce and edit a major sound recording based project in this studio/lab workshop. Emphasis is placed on developing advanced skills in pitching, planning, organizing and executing sound recording projects from inception to completion. In this workshop students work collaboratively, discuss, conceive, create and produce a work that displays the culmination of their knowledge, experience and production skills. Students work as producers, engineers and directors as the leader of their production. As part of this course, students organize and finish a complete portfolio of all their work that includes a résumé, reel, personal statement and cover letter.

Prerequisite(s): SRT 159 – Recording Studio Production I SRT 256 - Sound Recording Technology I MUS 241 – Music Business Or Permission of the SRT Program Coordinator

SRT 297 SOUND RECORDING AND MUSIC TECHNOLOGY INTERNSHIP I3-0-15

This course is an internship in a college-approved sound recording and music technology facility. It provides an opportunity for students to both experience and increase their understanding of employment within the Sound Recording and Music Technology industry. The course requires students to obtain an internship at a sound recording facility where they work under the direct supervision of a supervisor in the facility for a minimum of 5 hours per week (to a maximum of 15 hours per week or 255 total hours). In addition the student is required to maintain direct and consistent contact with an assigned Sound Recording and Music Technology Program faculty member. Students are rated by the employer on their job performance as part of the evaluation by the Sound Recording and Music Technology Program faculty member.

Prerequisite(s): SRT 104 - Introduction to Sound Recording Technology MUS140 - Introduction to Digital Music Technology SRT 159 – Recording Studio Production I SRT 250 - Sound Recording Technology I Or Permission of the SRT Program Coordinator

SPANISH

SPA 101 ELEMENTARY SPANISH I 3-3-0

A study of the fundamentals of Spanish language with exercises on communication skills, as well as an introduction to Hispanic culture through various media selections. Open to students with no previous training or one year of high school Spanish.

(Core Goal 12)

SPA 102 ELEMENTARY SPANISH II 3-3-0

This course, a continuation of SPA 101, reinforces progress in the four language skills: speaking, writing, listening, and reading. Increased emphasis given to oral communication skills. SPA 102 promotes understanding of Hispanic culture.

(Core Goal 12)

Prerequisite: SPA 101 or approval from the coordinator or a full-time faculty member who teaches Spanish.

SPA 111 THE WORLD OF SPAIN. 3-3-0

Taught entirely in English and open to all students, this course will provide an understanding of the forces that have molded the Spain of today and have influenced many aspects of our own society. The student will learn about the complex customs and personalities, and the unity and diversity of the Spanish people. Lectures and class discussions will be supplemented by audiovisual aids and individual research.

SPA 112 THE WORLD OF LATIN AMERICA 3-3-0

This course, also taught in English, will introduce the student to a group of neighboring countries which are of vital concern to the United States. The diversity of each country as well as the unifying characteristics of personality, customs and culture in Latin America as a whole will be analyzed. Lectures, class discussion, films and other audiovisuals, as well as individual research, will be used.

SPA 127 SPANISH FOR HEALTH CARE AND RELATED FIELDS 3-3-0

A primarily conversational course designed to teach students to communicate with Spanish-speakers in health-related matters, as well as in situations involving emergencies, accidents, family and job problems. Professional manuals, pamphlets, newspaper articles, and other pertinent materials will serve as the basis for instruction.

SPA 199 INDEPENDENT STUDY IN SPANISH 3-3-0

SPA 201 INTERMEDIATE SPANISH I 3-3-0

A concentrated review of Spanish grammar as well as exercises in speaking, reading and composition. Selected readings on Spanish culture and literature as a basis for developing skills.

Prerequisites: SPA 102 or approval from the coordinator or a full-time faculty member who teaches Spanish.

SPA 202 INTERMEDIATE SPANISH II 3-3-0

A continuation of SPA201 with extensive practice in selected readings, composition and conversation on a more advanced level.

Prerequisites: SPA 201 or permission of the instructor.

SPA 215 SPANISH CONVERSATION I 3-3-0

Practical use of the language with emphasis on oral-aural techniques, leading toward fluency and correctness in speaking. As a conversation course, most of the activities will be performed by the students.

Prerequisites: SPA 202 or equivalent, or consent of the instructor.

SPA 216 SPANISH CONVERSATION II 3-3-0

Practical use of the language with emphasis on oral-aural techniques, leading toward fluency and correctness in speaking. As a conversation course, most of the activities will be performed by the students.

Prerequisites: SPA 215 or consent of the instructor.

SPA 230 SPANISH: FILMS, CULTURE, AND CONVERSATION 3-3-0

This course explores films representing the broad spectrum of Hispanic experience. Course study includes Hispanic America and Spain as depicted in movies with a cultural, historical and political background. Classes will be conducted in Spanish.

(Core Goal 12)

Prerequisites: SPA 202. Students must have successfully completed or tested out of ENG 011 or ESL 011, REA 017 or REA 011.

SPA 251 ADVANCED SPANISH I 3-3-0

Advanced Spanish I is a course designed to improve proficiency in written and oral Spanish. Students will study the contemporary culture of Spain via authentic materials selected from authentic media as well as from cultural readings. Spanish literature is approached through the study of representative excerpts from the works of major Spanish authors. This class is taught in Spanish. Outside reading is required.

Prerequisite: SPA 202 or equivalent.

SPA 252 ADVANCED SPANISH II 3-3-0

Advanced Spanish II is a continuation of Advanced Spanish I. It is a course designed to improve proficiency in written and oral Spanish. Students will continue to study the contemporary culture of Spain and the Spanish-speaking countries via authentic materials selected from authentic media as well as from cultural readings. Spanish literature is approached through the study of representative excerpts from the works of major Spanish authors. This class is taught in Spanish. Outside reading is required.

Prerequisites: SPA251 or approval of instructor.

SPA 299 INDEPENDENT STUDY IN SPANISH 3-3-0

SPEECH COMMUNICATION

SPC 110 INTRODUCTION TO SPEECH COMMUNICATION. 3-3-0

A human performance course designed to improve oral communication skills in public speaking, group process, and interpersonal situations. Communication theory will be presented and practice will be provided with audience situation analysis, organizational strategies, critical listening and thinking and the use of ethical principles and evidence in the preparation and delivery of informative and persuasive speeches, participation in decision-making groups, and analysis of interpersonal relationships. The incorporation of research from credible sources into all communication contexts, with a specific emphasis on public communication, will be emphasized.

(Core Goals 1b, 2 and 5)

Prerequisites: Students must have successfully completed or tested out of ENG 011, REA 011 or REA 17 and ESL 011. Successful completion of ESL 009 is required for students who place into ESL courses.

SPC 111 CROSS-CULTURAL EMPHASIS: INTRODUCTION TO SPEECH COMMUNICATION 3-3-0

This course covers the same material, uses the same textbook and has comparable assignments as SPC 110. The major difference is that students have the opportunity to learn about diversity and inter-cultural

communication through experience, not just theoretical discussion. American students are assigned partners from a class of non-native speakers of English for conversation activities outside of class. These students already know how to read and write English; they are taking a course to improve their listening and conversation skills. Students in SPC 111 will learn about their own communicative practices through their conversations with their partners and by applying concepts from the course to their experience. This course is not recommended for students for whom English is a second language.

(Core Goals 1b, 2, 5 and 12).

Prerequisites: Students must have successfully completed or tested out of ENG 011, REA 011 or REA 17 and ESL 011. Successful completion of ESL 009 is required for students who place into ESL courses.

SPC 113 VOICE AND ARTICULATION 3-3-0

This course is designed for students in communication-intensive careers such as theater, broadcasting, sales, or teaching, as well as those in the English Second Language (ESL) Program to help them improve their vocal skills. Exercises and techniques to improve English pronunciation and articulation, vocal projection, rhythm and fluid delivery, projection, and resonance, will be taught. The International Phonetic Alphabet will also be covered. Application and practice will be required. (Core Goal 1b)

Prerequisites: Students must have successfully completed or tested out of ENG 011, REA 011, REA 17 or ESL 011. Successful completion of ESL 009 is required for students who place into ESL courses.

SPC 115 INTERPERSONAL COMMUNICATION 3-3-0

Although we regularly engage in interpersonal communication in our daily lives, we seldom stop to reflect on those interactions. In this course we will examine theories, concepts, and research associated with interpersonal communication and their applications for ethical and effective interaction in personal and professional settings. Emphasis is placed on the communication process, perception, listening, self-concept and self-disclosure, gender and cultural differences, verbal and nonverbal communication, conflict, power, and relationship development and dissolution. Class activities, discussions, readings and assignments are designed to develop communication skills necessary for interpersonal effectiveness and competency.

(Core Goals 9, 12 and 13)

Prerequisites: Students must have successfully completed or tested out of ENG 011, REA 011 or REA 17 and ESL 011. Successful completion of ESL 009 is required for students who place into ESL courses.

SPC 120 PUBLIC SPEAKING 3-3-0

A human performance course which stresses the theory, preparation, practice and criticism of informative and persuasive speeches. Previous speech training and/or experience is recommended.

(Core Goals 1b, 2, 5 and 11)

Prerequisites: Students must have successfully completed or tested out of ENG 011, REA 011 or REA 17 and ESL 011. Successful completion of ESL 009 is required for students who place into ESL courses.

SPC 125 INTRODUCTION TO PUBLIC RELATIONS 3-3-0

Students will learn basic concepts necessary to understand what public relations is and how it is practiced in a variety of settings. The course will begin with an examination of the theoretical and conceptual framework that supports the field of public relations. Students will then have an opportunity to apply theory to practice by helping a campus organization accomplish a public relations goal. Specific emphasis will be placed on the four step public relations process.

(Core Goals 1a, 2, 5 and 11)

Prerequisites: Students must have successfully completed or tested out of the ENG 011 or ESL 011, REA 011 or REA 017 ENG 101 and SPC110 or SPC111 or SPC120.

SPC 202 PERSUASION 3-3-0

This course examines theories and techniques associated with persuasion ranging from those centered on interpersonal settings to those featured in mass mediated campaigns. Assignments will focus on both oral and written persuasion with the goal of engaging students in the role that persuasive messages play in their lives.

(Core Goals 5 and 13)

Prerequisites: Students must have successfully completed or tested out of the ENG 011 or ESL 011, REA 011 or REA 017. SPC 110 or SPC 111 or SPC 120 and ENG 101

SPC 203 HUMAN COMMUNICATION THEORY 3-3-0

This course introduces students to theories of communication. The nature of—and differences between—social scientific and humanistic theories will be discussed. A focus will be the research methods used to develop and /or test communication theories. The course is geared towards 2nd year students with limited exposure to communication coursework.

(Core Goal 9)

Prerequisites: Students must have successfully completed SPC 120 and ENG 101.

SPC 225 WRITING FOR PUBLIC RELATIONS CAMPAIGNS 3-3-0

Students will receive instruction and writing practice designed to develop professional writing skills used by entry-level public relations practitioners. The course emphasizes the different approaches required for specific audiences and media, beginning with a review of the four-step public relations process. Students will then have an opportunity to practice their writing skills by designing a public relations campaign for a campus or community organization in a service-learning project.

(Core Goals 1a, 2 and 5)

Prerequisite: SPC 125.

SPC 230 COMMUNICATION IN ORGANIZATIONS 3-3-0

A performance course which introduces and builds the communication skills necessary for working business and professional settings. Emphasis will be placed on developing a working knowledge of theory and improving skills for interviewing, working in groups and teams, and presentational speaking. This course is suggested for students in business and communication as well as member of the community who are involved in organizations.

(Core Goals 1b, 2 and 5)

Prerequisites: Students must have successfully completed or tested out of ENG 011, REA 011 or REA 17 and ESL 011. Successful completion of ESL 009 is required for students who place into ESL courses.

STRATEGIES FOR COLLEGE SUCCESS

SCS 101 STRATEGIES FOR COLLEGE SUCCESS 2-2-1

An introduction to academic success strategies, including an orientation to college life, self-assessment and goal setting, study skills and time management, familiarization with college resources, and appreciation of cultural diversity. This course also includes a lab component of individualized academic advising throughout the semester by the course instructor. NOTE: This course is mandatory for all students testing into two or more developmental courses as a result of the placement tests.

Prerequisite: Successful completion of ESL 010 is required for students who place into ESL courses

SURGICAL TECHNOLOGY

SUR 105 SURGICAL TECHNOLOGY I. 7-6-4

This course is designed to introduce the student to the role of the surgical technologist in the health practice environment. Fundamental team

skills are developed to assist the student to function during the care of patients having surgery. Communication utilizing medical terminology and basic computer functions is demonstrated and discussed in relation to its role in the operating room. The principles of aseptic technique are introduced and demonstrated with the inclusion of the methods of sterilization, instrument identification, surgical set up, and instrumentation handling. Patient, equipment and supply preparation are demonstrated and applied to the procedural stages with basic concepts of robotics presented in relation to General, Colorectal, and Gynecologic/Obstetric Surgery. Accountability, responsibility and commitment to the surgical technologist profession are discussed. Concurrent clinical laboratory experiences introduce the student to the practice setting in the operating room as well as the sterile processing area. Prerequisites: Attainment of surgical technology selective admissions criteria and admission into the Program. Acceptance into the Surgical Technology Program. Co-requisite: BIO 131 and BIO 140.

SUR 106 SURGICAL TECHNOLOGY II 8-6-8

This course is designed to build on the knowledge gained in SUR 105. Fundamental team skills and knowledge of medical terminology are enhanced in SUR 106 and applied in the environment of the operating room and various specialties of surgery. Basic concepts of electricity and specialty equipment are introduced with the emphasis on safe patient care in the operating room. Patient, equipment, and supply preparation are demonstrated in the following types of surgeries: ear, nose, throat, mouth, jaw and eye. The specialty of cosmetic and reconstructive plastic surgery is presented. Students are exposed to neurosurgery of the spinal column and the brain. The actual procedural stages for each basic surgery within the aforementioned specialties are presented and reinforced in the clinical setting. The concurrent clinical laboratory experience during the actual surgical interventions affords students the opportunity to directly apply didactic information.

Prerequisites: BIO 131, BIO 140 and SUR 105 Co-requisite: BIO 132

SUR 205 SURGICAL TECHNOLOGY III 10-6-16

This course is designed to build on the knowledge gained in SUR 105 and SUR 106. Fundamental team skills in the environment of the operating room are applied to various specialties of surgery. Patient, equipment, and supply preparation are demonstrated in the following types of surgeries: genitourinary, cardio-thoracic, vascular and orthopedics. The patient preparation, instrument and equipment set-up and assembly are demonstrated. The actual procedural stages for each basic surgery within the specialties are presented and reinforced in the clinical setting. The concurrent clinical laboratory and site experience afford the student the opportunity to directly apply didactic information. The patient profile is also discussed with consideration given to age specific needs during surgical intervention. Response to death and dying in the operating room is introduced with exploration of various coping strategies. Co-morbidities are described. Employment skills and interview techniques are addressed with development of a professional resume.

Prerequisite: SUR 106

Co-requisites: ENG 102, ENG 115 or ENG 117

SUR 206 SURGICAL TECHNOLOGY IV 7-3-16

This course is designed to extend the knowledge of the Surgical Technologist. It is built on the knowledge gained in SUR105, SUR 106 and SUR 205. Essential team skills in the operating room environment are applied to various surgical specialties and disaster/ public health emergencies. Patient, equipment, and supply preparation are demonstrated in the following types of surgeries: advanced orthopedics, cardiovascular, minimally invasive cardiac, and trauma surgery. The patient preparation, instrument and equipment set up and assembly are demonstrated. The actual procedural

stages for each surgery within the specialties are presented and reinforced in the clinical setting. The concurrent clinical experience affords the student the opportunity to directly apply didactic information.

Prerequisite: SUR 205

Co-requisite: SOC 244

THEATRE

THA 105 INTRODUCTION TO ACTING I: IMPROVISATION AND FUNDAMENTALS .. 3-2-2

This entry-level course in acting is an exploration of the individual's body, voice, imagination and tools for communication. Through theatre games and exercises, students will explore improvisation and acting as a continuum of dynamic action, of listening and responding to stimuli and action with both the body and the emotional self. These tools will be applied to the presentation of monologues and scenes in class. Students will be required to attend live theatre performances.

(Core Goals 1b, 7 and 12)

Prerequisites: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

THA 106 INTRODUCTION TO ACTING II: SCENE STUDY..... 3-2-2

This course is a continuing exploration of an actor's tools, voice, body and imagination. Students will discuss and explore the actor's tools and instruments through exercise work, scene work and personal explorations. Students will be required to attend live theatre performances.

Prerequisites: Students must have successfully completed or tested out of completed THA105, or have prior experience or training in the art of acting (upon permission of instructor). Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

THA 114 INTRODUCTION TO THEATRE 3-3-0

This course is an entry level course in theatre history, its practice, and the creation of the theatrical event, exploring theatre's role as a central, social communication event. Through group and individual presentations, students will also explore as well as the roles of the various artists who collaborate to create theatre, how ideas are reflected in conception and reading of a play, and explore how ideas about interpretation and aesthetic can be reflected in production. Students will be required to attend live theatre performances.

(Core Goals 1b, 7 and 12)

Prerequisites: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

THA 150 THEATRE PRODUCTION WORKSHOP I: INTRODUCTION TO STAGECRAFT. 3-1-5

A studio class in which students learn the components of theatre production by participating in producing, staging and mounting a full length stage production.

Prerequisites: Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

THA 151 THEATRE PRODUCTION WORKSHOP II: APPLIED STAGECRAFT3-1-5

A continuation in the participation of producing, staging and mounting a full-length stage production. Students are expected to take greater responsibility and positions of leadership in this endeavor, applying techniques and stagecraft studied to the creation of a theatrical production. Evaluation of the process's strengths and weaknesses and one's performance in it will be evaluated and self-evaluated. Recommendations for future success are encouraged.

Prerequisites: Students must successfully complete THA 150 or receive permission from the instructor, and successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011.

THA 201 ACTING FOR THE CAMERA 3-2-2

This course is an upper level course in acting technique. Through in-class camera work, students explore the principles and acquire the necessary skills to work in the medium of film and television. Students will be required to attend live theatre performances.

Prerequisites: Completion of THA 105 and THA 106 with a grade of C or better. Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011

THA 203 THEATRE PRODUCTION WORKSHOP: PRACTICUM 3-1-5

This studio/lab course stresses the practical application of skills and techniques of applied stagecraft, working directly on production and consisting of practical application and lab hours. Lab hours include both hours spent working on projects during class-time as well as additional hours to be completed throughout the semester outside of class time.

Prerequisites: Completion of THA 150 and THA 151 with a grade of C or better. Students must have successfully completed or tested out of REA 017 or REA 011, ESL 011 or ENG 011

THA 205 DIRECTING: CREATING THE WORLD OF THE STAGE 3-2-2

This course gives theatre artists the tools for moving a story from page to stage. Student directors will study an overview of the role of the director in theatre history, the skills required in analyzing a text for interpretation, and basic organization for creating a production. These skills will then be applied to a scene (directed within class time and using student actors), as well as the presentation of the conceptualization of a full length piece.

Prerequisites: Completion of THA 105, THA 114 and THA 150 with a grade of C or better.

THA 250 ACTING SHAKESPEARE... 3-2-2

This course is an upper level course in acting technique, investigating the performance of Shakespeare's plays through scene work and related exercises. Tools of the actor which will be stressed are commitment, simplicity, listening, focus, concentration, play, imagination and openness. Students will be required to attend live theatre performances.

Prerequisites: Completion of THA 105 and THA 106 with a grade of C or better.

THA 251 MASK FOR THE ACTOR 3-2-2

This course is an upper level course in acting technique, investigating the use of masks, voiced and unvoiced, through improvised scene work and related exercises. Students will build half-masks and full masks and use these to explore the range of physical expression and characterization the body offers. Students will be required to attend live theatre performances.

Prerequisites: Completion of THA 105 and THA 106 with a grade of C or better.

THA 252 INTERPRETING SONG AND SCENE 3-2-2

This specialized course in theatre will explore the practical aspects of musical theatre performance and introduce the student to the history of the genre. Through the study of this American art form, students will expand their performance repertoire as well as their knowledge of groundbreaking shows and prolific composers. Students will workshop material throughout the semester in class in front of their peers, rehearse and present songs and scenes, and will be required to attend live theatre performances.

Prerequisites: THA 105 and MUS 120 with a grade of "C" or higher.

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Foundation objectives:

- To enhance College resources by building partnerships with business and community leaders
- To develop an exemplary pattern of giving, setting a standard of excellence for support of College family, alumni, and friends
- To provide educational and cultural enrichment for College family and community
- To finance scholarships for needy and deserving students
- To encourage creativity and innovation through an Internal Grants Program for faculty, administrators, staff, and students

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The Alumni Association has over 55,000 members and counting. Students that have either graduated or have taken 30 credits or more are considered alumni. In the spring of 2015, the Alumni Association launched its brochure which offers brand new benefits to alumni, which includes home and auto insurance discounts. Alumni are encouraged to stay engaged with the College by attending events, volunteering, and making a gift to the Annual Fund. Alumni are also encouraged to contact the Alumni Office with changes of address notifications at 215-461-1139 or alumni@mc3.edu.

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 M.S. West Chester University
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 M.A. University of Pittsburgh
- Patrick H. Winston, Associate Professor of Fine Art
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 M. Ed. Temple University Tyler School of Art
 M.F.A. School of Visual Arts
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 B.S. Philadelphia College of Textiles and Science
 M.A. Beaver College
 M.A., M.S. Villanova University
- Lee J. Wood, Associate Professor of Sociology
 B.A. Cedar Crest College
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 M.S. West Chester University
- Xingzhu Zhu, Associate Professor of Physics
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ACADEMIC CALENDAR

FALL SEMESTER (2015)

| | |
|--------------------------------|--------------------|
| Opening Day | 9/1/2015 |
| Classes Begin | 9/2/2015 |
| Labor Day - NO CLASSES..... | 9/7/2015 |
| Thanksgiving Holiday | 11/25 - 11/29/2015 |
| Classes End | 12/14/2015 |
| Reading Day - NO CLASSES | 12/15/2015 |
| Final Examinations | 12/16 - 12/21/2015 |
| Grades Due @ 11:59pm..... | 12/22/2015 |

FLEXIBLE LEARNING OPTIONS:

| | |
|-----------------------------|-------------------------|
| 10-Week Session..... | 9/30/2015 - 12/13/2015 |
| 7-Week (Early) Session..... | 9/2/2015 - 10/20/2015 |
| 7-Week (Late) Session | 10/21/2015 - 12/13/2015 |

WINTER SEMESTER (2015)

| | |
|---|------------|
| Winter Session Begins | 12/23/2015 |
| Holiday - NO CLASSES | 12/25/2015 |
| Holiday - NO CLASSES | 1/1/2016 |
| Winter Session Ends* | 1/16/2016 |
| Winter Session Grades Due @ 11:59pm | 1/17/2016 |

SPRING SEMESTER (2016)

| | |
|---|------------------|
| Martin Luther King Day - NO CLASSES | 1/18/2016 |
| Classes Begin | 1/20/2016 |
| Spring Break - NO CLASSES | 3/14 - 3/20/2016 |
| Classes End | 5/3/2016 |
| Reading Day - NO CLASSES | 5/4/2016 |
| Final Examinations | 5/5 - 5/10/2016 |
| Grades Due @ 11:59pm..... | 5/11/2016 |
| Commencement | 5/19/2016 |

FLEXIBLE LEARNING OPTIONS:

| | |
|-----------------------------|----------------------|
| 10-Week Session..... | 2/16/2016 - 5/2/2016 |
| 7-Week (Early) Session..... | 1/20/2016 - 3/8/2016 |
| 7-Week (Late) Session | 3/9/2016 - 5/3/2016 |

SUMMER SEMESTER (2016)

| | |
|---|-----------------|
| Classes Begin | 5/12/2016 |
| 1st 6-Week Session Begins | 5/16/2016 |
| 10-Week Session Begins | 5/23/2016 |
| Memorial Day - NO CLASSES..... | 5/30/2016 |
| 1st 6-Week Session Ends* | 6/28/2016 |
| NO CLASSES week of..... | 6/28 - 7/4/2016 |
| 1st 6-Week Session Grades Due @ 11:59pm | 6/29/2016 |
| 2nd 6-Week Session Begins | 7/5/2016 |
| 10-Week Session Ends* | 8/8/2016 |
| 10-Week Session Grades Due @ 11:59pm | 8/9/2016 |
| 2nd 6-Week Session Ends* | 8/15/2016 |
| 2nd 6-Week Session Grades Due @ 11:59pm | 8/16/2016 |
| Classes End | 8/24/2016 |
| Reading Day - NO CLASSES | 8/25/2016 |
| Final Examinations | 8/26/2016 |
| Grades Due @ 11:59pm..... | 8/27/2016 |

*6-Week and 10-Week Sessions do not have dedicated dates for final exams

think big.®

For 50 years, Montgomery County Community College has grown with the community to meet the evolving educational needs of Montgomery County. The College's comprehensive curriculum includes more than 100 associate degree and certificate programs, as well as customized workforce training and certifications. Students enjoy the flexibility of learning at the College's thriving campuses in Blue Bell and Pottstown, at the Culinary Arts Institute in Lansdale, and online through a robust Virtual Campus. The College also offers first responder training programs at the County's Public Safety Training Campus in Conshohocken.

An Achieving the Dream (AtD) Leader College, the institution is positioned at the vanguard of national efforts to increase completion, improve learning outcomes, and remove barriers to access for more than 24,000 students annually. The College is also recognized regionally and nationally for its sustainability leadership, work with military veterans, community service and service learning opportunities, and use of classroom technology.